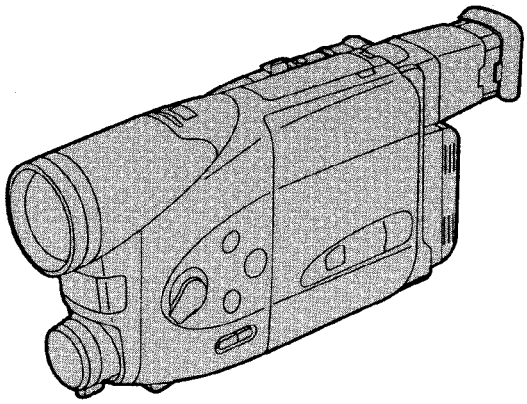
ORDER NO. VMD9503M115

# Service Manual



Panasonic VHS C PAL

DL-MECHANISM HQ

VHS-C Movie

## NV-R55A/EE
## NV-R550EN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Panasonic


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## SPECIFICATIONS

| ITEM | SPECIFICATION |
|---|---|
| POWER | Source: Battery Pack; 4.8V DC<br>AC Adaptor; 6.0V DC<br>Consumption;<br>7.2W (Battery Pack Operation) |
| VIDEO RECORDING SYSTEM | 4 rotary heads, helical scanning system PAL |
| TAPE FORMAT | VHS-C Cassette Tape (Tape width 12.7mm) |
| TAPE SPEED | SP mode: 23.39mm/s<br>LP mode: 11.7mm/s<br>Record/Playback Time:<br>SP: 45min. with NV-EC45XG or NV-EC45SGXP<br>LP: 90min. with NV-EC45XG or NV-EC45SGXP<br>FF/REW Time:<br>less than 5min. with NV-EC45XG or NV-EC45SGXP |
| CAMERA | PICK-UP ELEMENT:<br>CCD (Charge Coupled Device) |
| | STANDARD ILLUMINATION: 1,400 lux |
| | MINIMUM REQUIRED ILLUMINATION:<br>1 Lux (Low Light Mode) |
| | LENS: 10:1 Wide-angle/Variable Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Auto Focus System, F1.8 (3.9~39mm), Filter Diameter 43mm |
| | IMAGE SENSOR: 1/3 inch CCD Image Sensor |
| | VIEWFINDER: 0.7-inch Colour LCD Viewfinder |

| ITEM | SPECIFICATION |
|---|---|
| VIDEO | HEADS: 4 rotary heads, 1 flying erase head |
| | OUTPUT: PHONO CONNECTOR;<br>1.0Vp-p 75Ω unbalanced |
| AUDIO | HEAD: 1 Stationary head (Normal-Mono) |
| | OUTPUT: PHONO CONNECTOR;<br>−6dB, 47kΩ loaded |
| | INPUT: MIC IN (M3);<br>−70dB 4.7kΩ or more unbalanced |
| WEIGHT | Approx. 720g (without Battery Pack) |
| DIMENSIONS | 71(W)×117(H)×254(D) mm |
| STANDARD ACCESSORIES | 1 pc. AC Adaptor<br>1 pc. Battery Pack<br>1 pc. Cassette Adaptor<br>1 pc. Shoulder Strap<br>1 pc. DC Input Cable<br>1 pc. Battery for Cassette Adaptor Operation<br>1 pc. AC Cable<br>1 pc. 21 Pin Adaptor (NV-R55EE)<br>1 pc. AV Output Cable<br>1 pc. AV Wide Scope |

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Note :

The following items are separated from this model.
So, please refer to each Service Manual as follows.

| SEPARATED ITEMS<br>Contens of Separate volume | Order-Number For<br>Service Manual | REMARKS |
|---|---|---|
| Adjustment procedure of Mechanism-Chassis | VMD9412M130 | |
| Adjustment procedure of Camera | VMD9503M116 | |
| AC Adaptor : VSK0317C.<br>(VSK0317 :AC adaptor for NV-R55 series) | VMD9501M104. | |

NOTE

ONLY FOR *NV-R550EN:*

There are two versions of NV-R550EN depends on countries.
One is for only Hong Kong, the other one is for all of other "EN" area.
The following table shows the differences between the versions.

| Ref. No. | PART No. *(Printed model No.)* | | DESCRIPTION | PCS | REMARKS |
|---|---|---|---|---|---|
| | EXCEPT HONG KONG | HONG KONG | | | |
| 653(6) | VPG7826<br>*(NV-R550EN)* | VPG7827<br>*(NV-R550ENH)* | PACKING CASE | 1 | |
| 655(6) | VJA0664 | VJA0733 | AC CORD | 1 | |

*Regarding both of the* Movie Camera units *are completly same.*

**TECHNICAL INFORMATION**

1-1. Service Extension Cables.

Use the following extension cables when checking or adjusting individual circuit bords.

| Ref | Part No. | PIN | Part Name | Connection | Q'ty | Remaks |
|---|---|---|---|---|---|---|
| 1 | VFK0524 | 3 | Extension Cable | P303 (Main) ~ PJ6701(S/S) | 1 | or VFK0499 |
| 2 | VFK0727 | 16 | Flat Cable | FP6001(Main) ~ Mech. Chassis | 1 | |
| 3 | VFK0728 | 9 | Flat Cable | FP4001(Main) ~ A/C HEAD | 1 | or VFK0980 |
| 4 | VFK0729 | 6 | Flat Cable | FP6002(Main) ~ Mech. Chassis | 1 | or VFK0978 |
| 5 | VFK0839 | 30 | Extension Cable | PS1001(POWER) ~ PP1601(E.V.F) | 1 | |
| 6 | VFK0894 | 5 | Extension Cable | P802 (E.V.F A)~ P1701(LITH.) | 1 | or VFK0627 |
| 7 | VFK0913 | 18 | Flat Cable | FP701 (Main) ~ LENS UNIT | 1 | |
| 8 | VFK0929 | 12 | Flat Cable | PP201 (Main) ~ CCD UNIT | 1 | |
| 9 | VFK0949 | 22 | Flat Cable | FP6005(Main) ~ FP2003(DRIVE) | 1 | |

How to use extension cables

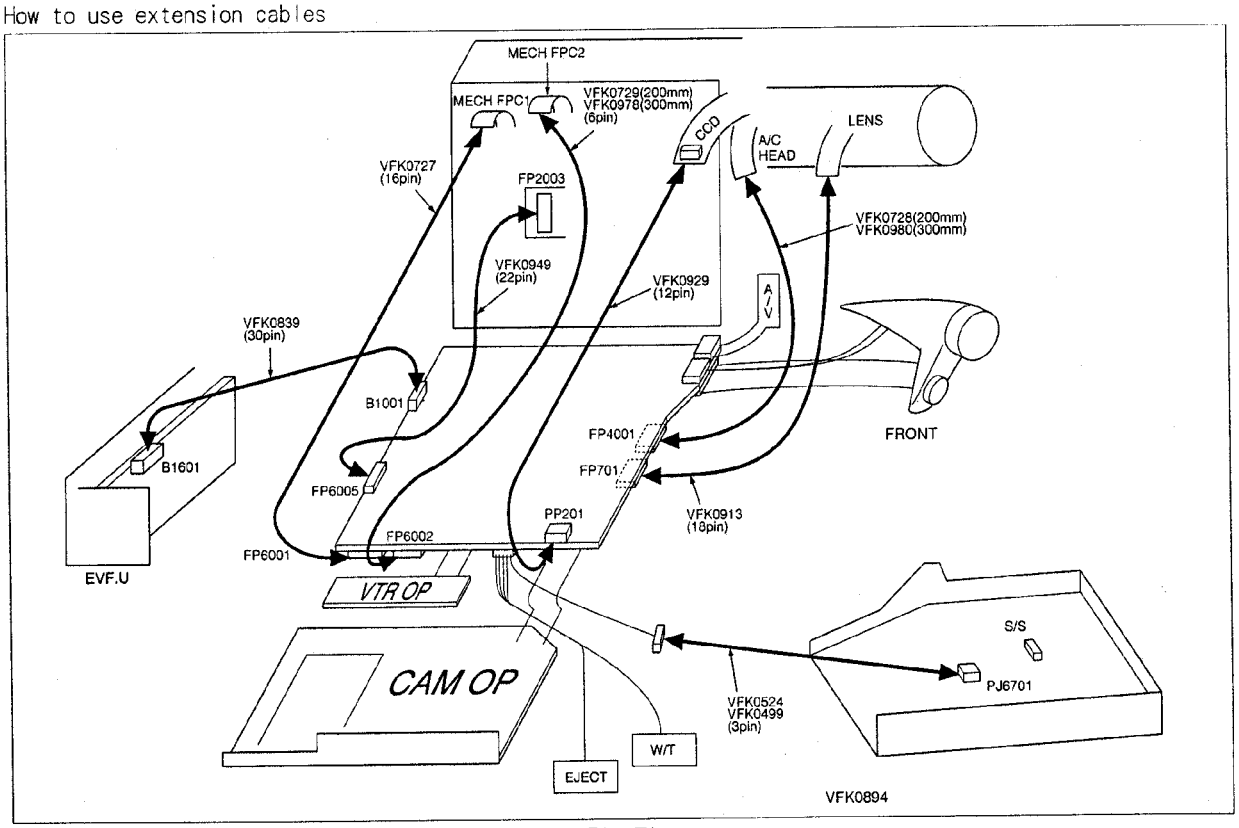



Fig. T1

Note 2:

For easy servicing, remove the 3 parts from the Side Case(L) as shown below.

1). Zoom SW..... (By removing 1 Screw)

2). Power SW..... (By removing 2 Screws)

3). AV-Jack..... (By removing 2 Screws)

# SERVICE INFORMATION DISPLAY

## General Description

The NV-R33/R330 series has SERVICE INFORMATION DISPLAY function which facilitates quick trouble-shooting. You can turn on the Service Information Display, by performing the following procedures. This causes the Service Information to be displayed on the EVF. (There are 4 kinds of SERVICE MODE, as shown below.) In the OSD Line Output Mode, Service Information can also be viewed on the TV.

| MODE NAME | FUNCTION | How to turn it ON. (Push following keys simultaneously for at least 2 sec.) | | |
|---|---|---|---|---|
| OSD Line Output MODE | · Checking the EVF information on the TV monitor. | DATE/TIME SET (TOP PANEL) | RESET (TOP PANEL) | DATE TIME (SIDE PANEL) |

| MODE NAME | FUNCTION | How to turn it ON. (Push following keys simultaneously for at least 2 sec.) | | |
|---|---|---|---|---|
| SERVICE MODE 1 | · Remaining Battery A/D Value<br>· Safety Device<br>· Capstan/Cylinder injuctions | DATE/TIME SHIFT (TOP PANEL) | RESET (TOP PANEL) | DATE TIME (SIDE PANEL) |

| MODE NAME | FUNCTION | How to turn it ON. (After chosing SERVICE MODE 1, Push [DATE/TIME] key. (SIDE PANEL) |
|---|---|---|
| SERVICE MODE 2 | · Reference Voltage A/D Value<br>· Mechanism position<br>· Serial key code. | DATE/ TIME |

| MODE NAME | FUNCTION | How to turn it ON. (After chosing SERVICE MODE 2, Push [DATE/TIME] key. (SIDE PANEL) |
|---|---|---|
| SERVICE MODE 3 | · ERROR CODE Display | DATE/ TIME |

| MODE NAME | FUNCTION | How to turn it ON. (After chosing SERVICE MODE 3, Push [DATE/TIME] key. (SIDE PANEL) |
|---|---|---|
| SERVICE MODE 4 | ·PG SHIFTER ADJUSTMENT | DATE/ TIME |

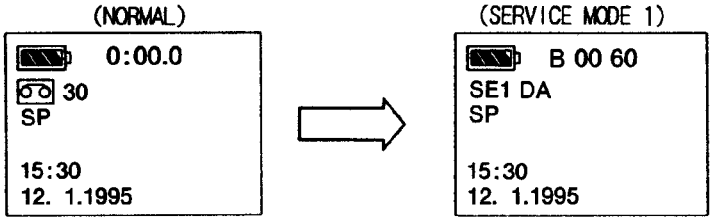
## ERROR CODE DISPLAY

When undesirable conditions occur, the "ERROR CODE" will automatically be displayed on the EVF, also the CAMERA LED will flash for a short time, then the power will be turned off.
By turning on Service Mode 3, you can check to see what kind of undesirable condition occured, even after the ERROR CODE has disappeared. (To perform the Service Mode 3, do not disconnect the AC adoptor or battery pack, after undesiable condition occured.)
To clear the ERROR CODE, disconnect the AC Main Lead or the Battery.

## SERVICE MODE 1

① Remaining Battery Voltage (A/D Value)=This Value shows the voltage at IC6001 Pin 98 which detects the battery under cut.

Display:
(Example)




For example ⇒SE1 DA
(Service Mode1) (IC6001 Pin 98 is 3.25V.)
(Batt. Remaining Volt.)

★ When the voltage at IC6001 pin98(the battery remaining voltage) and the voltage at IC6001 Pin 99 (the reference voltage) became the same level, battery under cut will be detected.

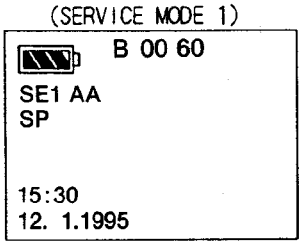
| High Digit | Low Digit 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0.01 | 0.03 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 |
| 1 | 0.24 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.33 | 0.34 | 0.36 | 0.37 | 0.39 | 0.40 | 0.41 | 0.43 | 0.45 | 0.46 |
| 2 | 0.48 | 0.49 | 0.51 | 0.52 | 0.54 | 0.55 | 0.57 | 0.58 | 0.60 | 0.61 | 0.63 | 0.64 | 0.66 | 0.67 | 0.69 | 0.70 |
| 3 | 0.72 | 0.73 | 0.75 | 0.76 | 0.77 | 0.79 | 0.80 | 0.81 | 0.83 | 0.85 | 0.86 | 0.88 | 0.89 | 0.91 | 0.92 | 0.94 |
| 4 | 0.95 | 0.97 | 0.98 | 1.00 | 1.01 | 1.03 | 1.04 | 1.06 | 1.07 | 1.09 | 1.10 | 1.12 | 1.13 | 1.15 | 1.16 | 1.18 |
| 5 | 1.19 | 1.21 | 1.22 | 1.24 | 1.25 | 1.27 | 1.28 | 1.30 | 1.31 | 1.33 | 1.34 | 1.36 | 1.37 | 1.39 | 1.40 | 1.42 |
| 6 | 1.43 | 1.45 | 1.46 | 1.48 | 1.49 | 1.50 | 1.52 | 1.53 | 1.55 | 1.56 | 1.58 | 1.59 | 1.61 | 1.62 | 1.64 | 1.65 |
| 7 | 1.67 | 1.68 | 1.70 | 1.71 | 1.73 | 1.74 | 1.76 | 1.77 | 1.79 | 1.80 | 1.82 | 1.83 | 1.85 | 1.86 | 1.87 | 1.89 |
| 8 | 1.91 | 1.92 | 1.94 | 1.95 | 1.97 | 1.98 | 2.00 | 2.01 | 2.03 | 2.04 | 2.06 | 2.07 | 2.09 | 2.10 | 2.12 | 2.13 |
| 9 | 2.15 | 2.16 | 2.18 | 2.19 | 2.21 | 2.22 | 2.24 | 2.25 | 2.26 | 2.28 | 2.29 | 2.31 | 2.32 | 2.34 | 2.35 | 2.37 |
| A | 2.38 | 2.40 | 2.41 | 2.43 | 2.44 | 2.46 | 2.47 | 2.49 | 2.50 | 2.52 | 2.53 | 2.55 | 2.56 | 2.58 | 2.60 | 2.61 |
| B | 2.62 | 2.64 | 2.65 | 2.67 | 2.69 | 2.70 | 2.71 | 2.73 | 2.74 | 2.76 | 2.77 | 2.79 | 2.80 | 2.82 | 2.83 | 2.85 |
| C | 2.86 | 2.88 | 2.89 | 2.91 | 2.92 | 2.94 | 2.95 | 2.97 | 2.98 | 2.99 | 3.01 | 3.02 | 3.04 | 3.05 | 3.07 | 3.08 |
| D | 3.10 | 3.11 | 3.13 | 3.14 | 3.16 | 3.17 | 3.19 | 3.20 | 3.22 | 3.23 | 3.25 | 3.26 | 3.28 | 3.29 | 3.31 | 3.32 |
| E | 3.34 | 3.35 | 3.37 | 3.38 | 3.40 | 3.41 | 3.43 | 3.44 | 3.46 | 3.47 | 3.49 | 3.50 | 3.52 | 3.53 | 3.55 | 3.56 |
| F | 3.58 | 3.59 | 3.61 | 3.62 | 3.64 | 3.65 | 3.67 | 3.68 | 3.70 | 3.71 | 3.73 | 3.74 | 3.75 | 3.77 | 3.78 | 3.80 |

Remaining Battery Voltage (A/D value) (Voltage at IC6001 Pin 98)

② The condition of the tape, safety device, capstan/cylinder information are shown in hexa decimal numbers.

Display: (Example)

(SERVICE MODE 1)




B 0 0 6 0

*. TAPE END & BEGINNING DET. ⇒ NO CASSETTE

*. CASSETTE DOWN DET WITH SAFETY TAB

Display position ⇒ 0. 0 0. 0 0 (The position of linear time counter)

Part E (See Fig. E)

Part D (See Fig. D)

Part C (See Fig. C)

Part B (See Fig. B)

Part A (See Fig. A)

| DISPLAY / CONTENTS | 8 | 9 | A | B |
|---|---|---|---|---|
| CASSETTE DOWN SW (CASS. DOWN:1) | 0 | 1 | 0 | 1 |
| SAFETY TAB SW (TAB:1) | 0 | 0 | 1 | 1 |
| NOT USED(ALWAYS "0") | 0 | 0 | 0 | 0 |
| NOT USED(ALWAYS "1") | 1 | 1 | 1 | 1 |

Fig. A

| DISPLAY / CONTENTS | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LOADING LOCK (DET. :1) | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| CYLINDER LOCK (DET. :1) | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| T-REEL LOCK (DET. :1) | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| S-REEL LOCK (DET. :1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

Fig. B

| DISPLAY / CONTENTS | 0 | 4 | 8 | C |
|---|---|---|---|---|
| NOT USED(ALWAYS "0") | 0 | 0 | 0 | 0 |
| NOT USED(ALWAYS "0") | 0 | 0 | 0 | 0 |
| BATTERY UNDER CUT(DET:1) | 0 | 1 | 0 | 1 |
| DEW SENSOR (DET:1) | 0 | 0 | 1 | 1 |

Fig. C

| DISPLAY / CONTENTS | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UN-LOADING COMMAND (OUTPUT:1) | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| TAPE END DETECTION (DET. :1) | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| TAPE BEGINNING DETECTION(DET. :1) | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| POSITION CHATARING (DET. :1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

Fig. D

| DISPLAY / CONTENTS | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CYLINDER ON (OUTPUT:1) | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| CAPSTAN ON (OUTPUT:1) | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| CAPSTAN REV. (OUTPUT:1) | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| LOADING ON (OUTPUT:1) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

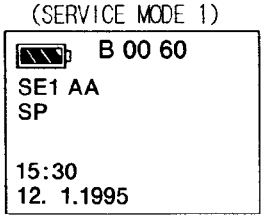
Fig. E

## SERVICE MODE 2

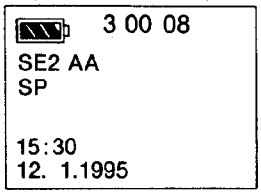
① Reference voltage A/D Value =This value shows the voltage at IC6001 Pin 99 which is used as a reference voltage to detect the battery under cut.

Display :
(Example)

(SERVICE MODE 1)




(SERVICE MODE 2)




For example ⇒SE2 AA
(Service Mode 2) (IC6001 Pin 99is 2.53V.)
(Reference voltage)

★. When the following formula is fulfilled, the under-cut is detected.

| FORMULA | (REFERENCE VOLTAGE) (IC6001 pin 99) | ≧ | (REMAINING BATTERY VOLTAGE) (IC6001 pin 98) |
|---|---|---|---|

(unit:V)

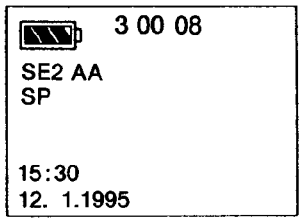
| High Digit \ Low Digit | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 0.01 | 0.03 | 0.04 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.18 | 0.19 | 0.21 | 0.22 |
| 1 | 0.24 | 0.25 | 0.27 | 0.28 | 0.30 | 0.31 | 0.33 | 0.34 | 0.36 | 0.37 | 0.39 | 0.40 | 0.41 | 0.43 | 0.45 | 0.46 |
| 2 | 0.48 | 0.49 | 0.51 | 0.52 | 0.54 | 0.55 | 0.57 | 0.58 | 0.60 | 0.61 | 0.63 | 0.64 | 0.66 | 0.67 | 0.69 | 0.70 |
| 3 | 0.72 | 0.73 | 0.75 | 0.76 | 0.77 | 0.79 | 0.80 | 0.81 | 0.83 | 0.85 | 0.86 | 0.88 | 0.89 | 0.91 | 0.92 | 0.94 |
| 4 | 0.95 | 0.97 | 0.98 | 1.00 | 1.01 | 1.03 | 1.04 | 1.06 | 1.07 | 1.09 | 1.10 | 1.12 | 1.13 | 1.15 | 1.16 | 1.18 |
| 5 | 1.19 | 1.21 | 1.22 | 1.24 | 1.25 | 1.27 | 1.28 | 1.30 | 1.31 | 1.33 | 1.34 | 1.36 | 1.37 | 1.39 | 1.40 | 1.42 |
| 6 | 1.43 | 1.45 | 1.46 | 1.48 | 1.49 | 1.50 | 1.52 | 1.53 | 1.55 | 1.56 | 1.58 | 1.59 | 1.61 | 1.62 | 1.64 | 1.65 |
| 7 | 1.67 | 1.68 | 1.70 | 1.71 | 1.73 | 1.74 | 1.76 | 1.77 | 1.79 | 1.80 | 1.82 | 1.83 | 1.85 | 1.86 | 1.87 | 1.89 |
| 8 | 1.91 | 1.92 | 1.94 | 1.95 | 1.97 | 1.98 | 2.00 | 2.01 | 2.03 | 2.04 | 2.06 | 2.07 | 2.09 | 2.10 | 2.12 | 2.13 |
| 9 | 2.15 | 2.16 | 2.18 | 2.19 | 2.21 | 2.22 | 2.24 | 2.25 | 2.26 | 2.28 | 2.29 | 2.31 | 2.32 | 2.34 | 2.35 | 2.37 |
| A | 2.38 | 2.40 | 2.41 | 2.43 | 2.44 | 2.46 | 2.47 | 2.49 | 2.50 | 2.52 | 2.53 | 2.55 | 2.56 | 2.58 | 2.60 | 2.61 |
| B | 2.62 | 2.64 | 2.65 | 2.67 | 2.69 | 2.70 | 2.71 | 2.73 | 2.74 | 2.76 | 2.77 | 2.79 | 2.80 | 2.82 | 2.83 | 2.85 |
| C | 2.86 | 2.88 | 2.89 | 2.91 | 2.92 | 2.94 | 2.95 | 2.97 | 2.98 | 2.99 | 3.01 | 3.02 | 3.04 | 3.05 | 3.07 | 3.08 |
| D | 3.10 | 3.11 | 3.13 | 3.14 | 3.16 | 3.17 | 3.19 | 3.20 | 3.22 | 3.23 | 3.25 | 3.26 | 3.28 | 3.29 | 3.31 | 3.32 |
| E | 3.34 | 3.35 | 3.37 | 3.38 | 3.40 | 3.41 | 3.43 | 3.44 | 3.46 | 3.47 | 3.49 | 3.50 | 3.52 | 3.53 | 3.55 | 3.56 |
| F | 3.58 | 3.59 | 3.61 | 3.62 | 3.64 | 3.65 | 3.67 | 3.68 | 3.70 | 3.71 | 3.73 | 3.74 | 3.75 | 3.77 | 3.78 | 3.80 |

Reference Voltage (A/D value ) (Voltage at IC6001 Pin 99)

② The contents of mechanism position, serial key code and mechanical process number are shown in hexa decimal number.

(SERVICE MODE 2)

Display:
(Example)




3 0 0 0 8

*. NO OPERATION

*. STOP 1 MODE

Display position ⇒0. 0 0. 0 0 (The position of linear time counter)

Part H (See Fig. H)( *. With cassette tape)

Part G (See NOTE A)

Part F (See Fig. F)

| DISPLAY | MECHANISM POSITION |
|---|---|
| 1 | EJECT |
| 2 | PRE-EJECT |
| 3 | STOP 1 |
| 4 | PRE-STOP |
| 5 | |
| 6 | (MID) |
| 7 | |
| 8 | STOP 2 |
| 9 | ——— |
| A | PLAY |

Fig. F (Mechanism Position)

| DISPLAY | KEY CODE |
|---|---|
| 0 0 | STOP |
| 0 1 | EJECT |
| 0 2 | REW |
| 0 3 | FF |
| 0 6 | PAUSE |
| 0 8 | REC/REC PAUSE |
| 0 A | PLAY |
| F F | NO OPERATION |

NOTE: To activate the key code display function, insart the casstte tape to the movie.).)

Fig. H (Key code)

NOTE A:

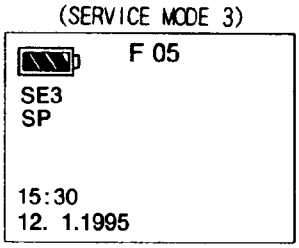
This part shows mechanism movement process.
However it changes too fast to read it.
When servicing, use the Part F (Mechaism Position:See Fig. F)in stead of Part G.

## SERVICE MODE 3

① After undesirable conditions occured, you can check to see what kind of error occured by turning on the Service Mode 3. (The Error Code is displayed on the E.V.F. again, even power is turned OFF.
NOTE : To perform the service mode 3, do not disconnect the AC Adoptor or Battery pack, after undesiable condition occured. (After AC adoptor or Battery pack is disconnected, the Error Code is elased.)

Display: (Example)

(SERVICE MODE 3)




F 0 5
*. Detected the Cylinder lock

Display position ⇒ O : O O . O O (The position of linear time counter)
(See Fig. I)
Blank (No display)
01~05, 10~11, 51, 52
F or U

| DISPLAY | CONDITION | The Power off timing |
|---|---|---|
| F 0 1 | T-REEL LOCK | After 1 minute (flashing the LED) |
| F 0 2 | S-REEL LOCK | |
| F 0 3 | UNLOADING LOCK | |
| F 0 4 | LOADING LOCK | |
| F 0 5 | CYLINDER LOCK | |
| F 5 1 | FOCUS MOTOR LOCK | ---------- |
| F 5 2 | ZOOM MOTOR LOCK | |
| U 1 0 | DEW DETECTION | After 18 minutes(flashing the LED) |
| U 2 0 | HEAD CLOGGING | Not turning off |

Fig. I Error Code

When undesiable condition occured, you can check error code by looking at how the CAMERA LED flashes (The flashing pattern differ according to the Error Code.)
Note:Even if the Service Mode 3 is activated, the CAMERA LED will not flash again.)

| Lock Condition | Power LED Flashing Timming |
|---|---|
| T-REEL LOCK (F01) | ↔ 2.56sec |
| S-REEL LOCK (F02) | ↔ 0.16sec |
| UNLOADING LOCK (F03) | |
| LOADING LOCK (F04) | |
| CYLINDER LOCK (F05) | |
| OTHERS (U10 & U11) | Power LED is flashed at 1 Hz timing |

Fig. J LED Flashing Timing

## SERVICE MODE 4

① Service Mode 4 is PG SHIFTER ADJUSTMENT mode for Servo section.
For more detail, please refer to Adjustment Service Manual Order No. VMD9503M116.

Display:
(Example)

(SERVICE MODE 3)

PG 67
SE4
SP

15:30
12. 1.1995

PG 67

*. PG shifter Adj. value.

3. How to Check Digital Circuit

3-1. Checking Principle

The digital circuit can be checked if a ramp signal (Sawtooth signal) is supplied to the input of A/D Converter (IC302-29).

The output od A/D converter is described below.
In addition to the A/D converter IC302 output, all digital ICs input and output signals become specified pulses, which are listed in schematic diagram.

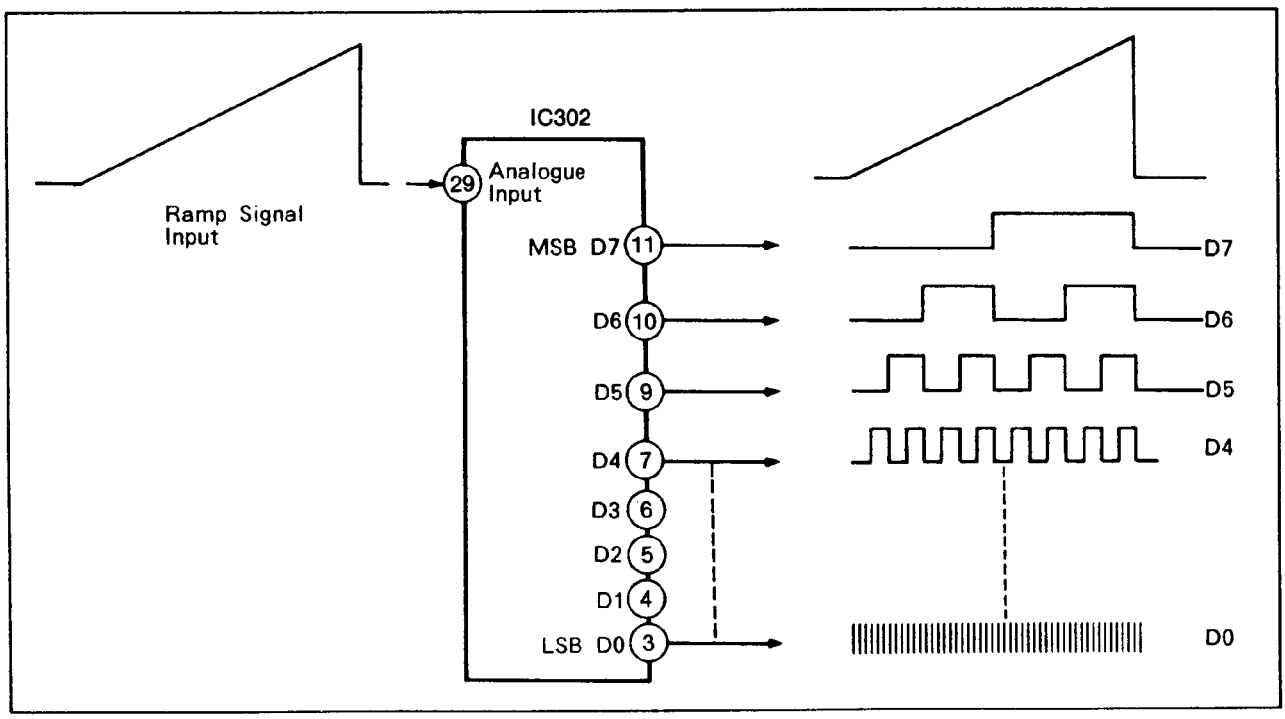
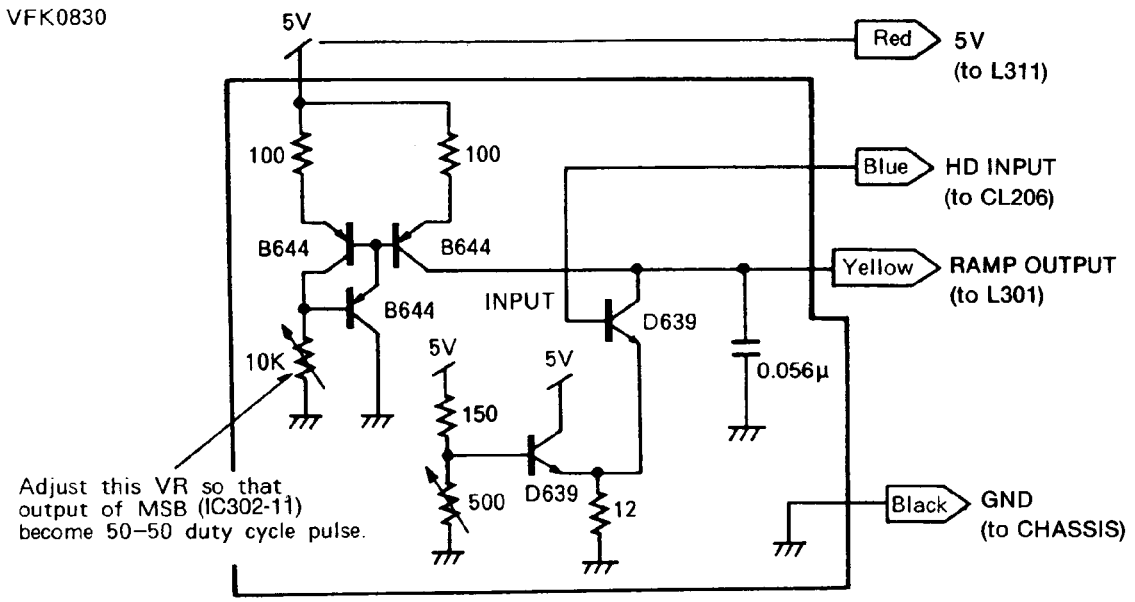



Fig. L1

3-2. How to Connect ramp generator.

In order to generate a ramp signal that synchronize with the HD signal(Horizontal Drive) of the camera, the following ramp generator circuit has been designed.
Construct and connect it to process borad as shown in Fig. L2, L3.



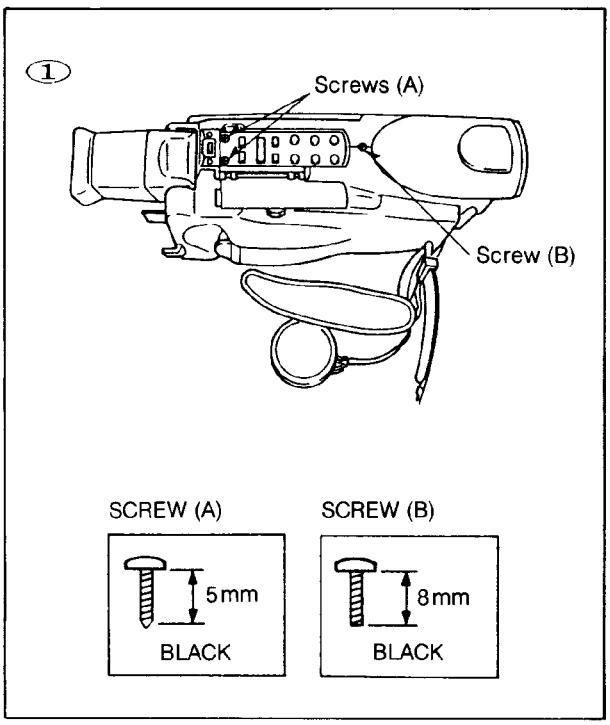

| ITEMS | VALUE | PCS |
|---|---|---|
| **RESISTOR** | | |
| **ERDS2TJ120** | **12ohm** | **1** |
| **ERDS2TJ101** | **100ohm** | 2 |
| **ERDS2TJ151** | **150ohm** | **1** |
| VARIABLE RESISTOR | | |
| EVNDRAA00B14 | 10Kohm | 1 |
| EVNDRAA00B52 | 500ohm | 1 |
| **TRANSISTOR** | | |
| **2SB644** | **PNP** | **3** |
| **2SD639** | **NPN** | **2** |
| **CAPACITOR** | | |
| **ECQB1H563JH** | **0.056µ** | **1** |

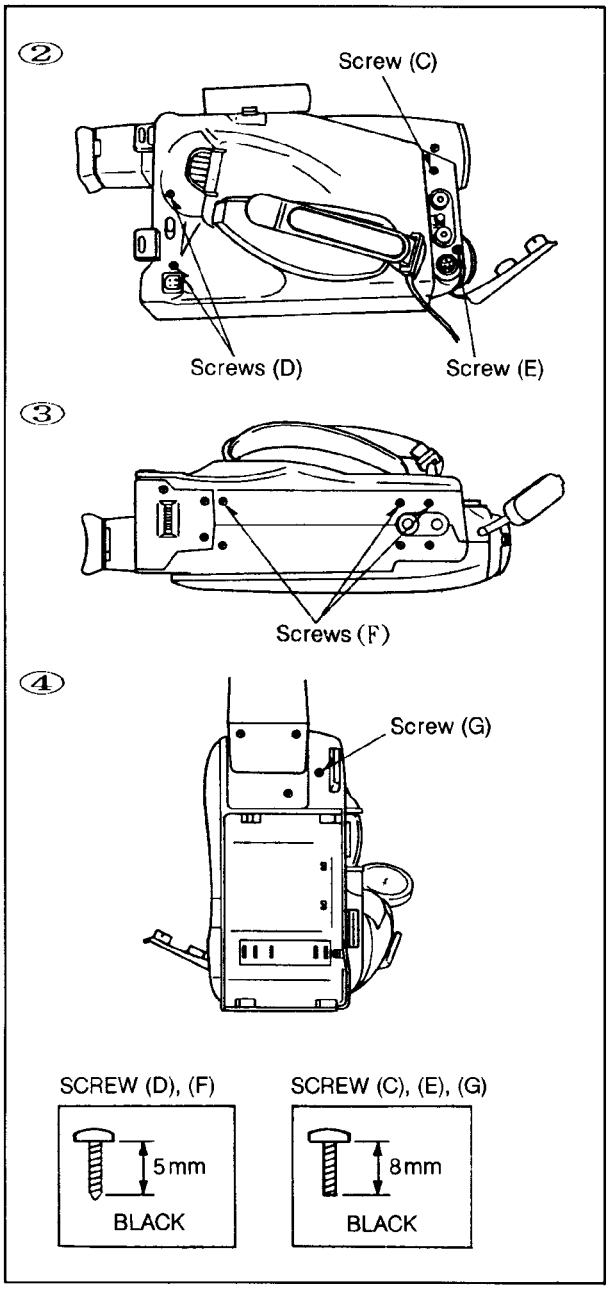
Fig. L2

# 2-1. DISASSEMBLY PROCEDURES

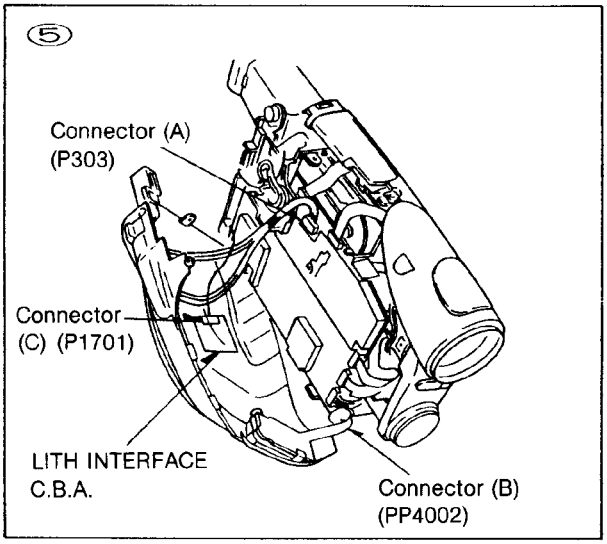
Flow-Chart for Disassembly Procedure

| NBR | ITEM/PART | Fig. | Removal(SCREW) |
|---|---|---|---|
| 【1】 | Side Case (L). | ① | 3-SCREW (AX2/B) |
| | | ② | 4-SCREW(C/D/E) |
| | | ③ | 3-SCREW (F) |
| | | ④ | 2-SCREW (G) |
| | | ⑤ | Slightly open the side case (L). Disconnect(Connector A/B/C). |
| 【2】 | Cassette Cover | ⑥ | 2-SCREW(H) |
| 【3】 | Side Case (R). & LENS-COVER | ⑦ | Disconnect(Connector D/E/F/G) 2-SCREW (I) Unlock---2 Locking Tabs |
| | | ⑧ | 1-SCREW (K) Unlock---Locking Tabs |
| | | ⑨ | 3-SCREW (L) |
| 【4】 | Main C.B.A | ⑩ | 3-SCREW (M) Disconnect(Connector I/H/J/K/L M) |
| | | ⑪ | Disconnect(Connector N) |
| | | ⑫ | Slightly open the Main C.B.A. Disconnect(Connector O) |
| 【5】 | EVF-Unit | ⑬ | 2-SCREW (N) |
| | | ⑭ | 1-SCREW (O) |
| | | ⑮ | Remove the EVF-unit |
| | | ⑯ | 3-SCREW (P) Disconnect(Connector Q/R) |
| 【6】 | Drive C.B.A | ⑰ | 2-SCREW (Q) Disconnect(Connector S/T) |
| 【7】 | Lens-Unit | ⑱ | 2-SCREW (S) |

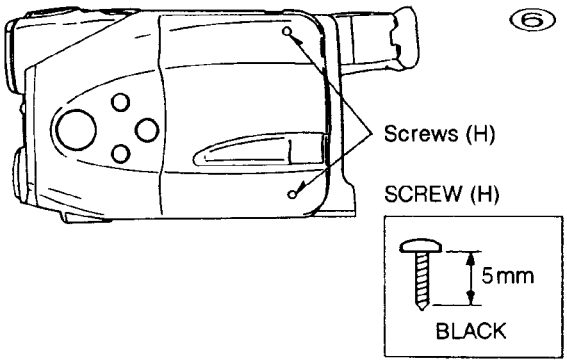


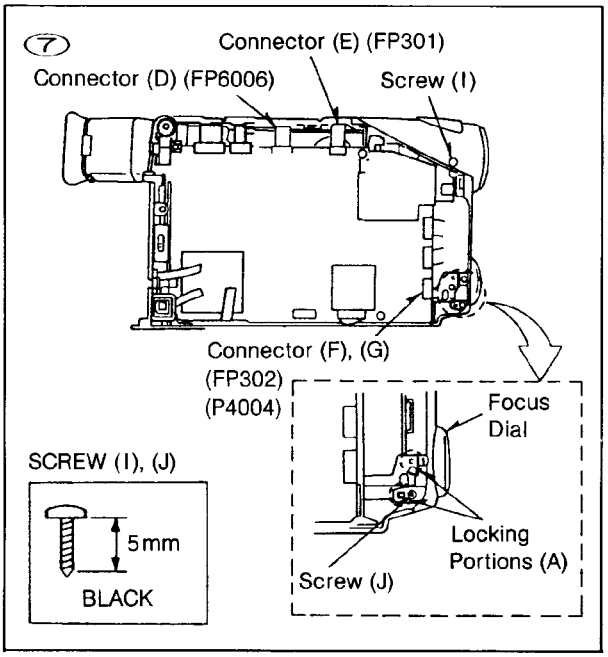
⑤



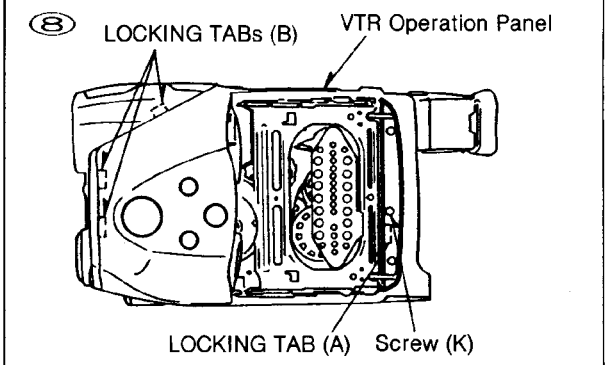

⑥



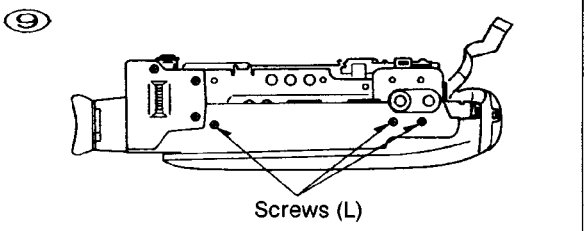

⑦



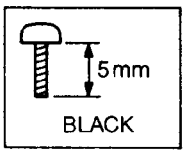

⑧



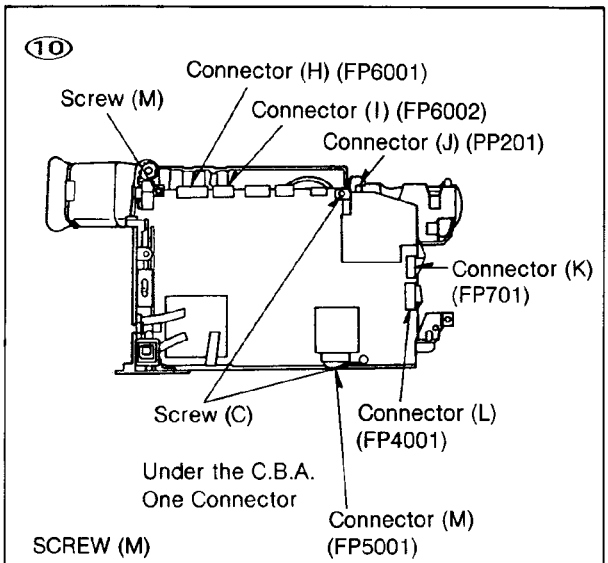

⑨



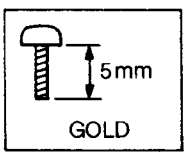

SCREW (K), (L)




⑩




SCREW (M)



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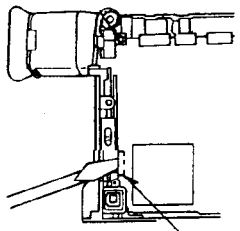
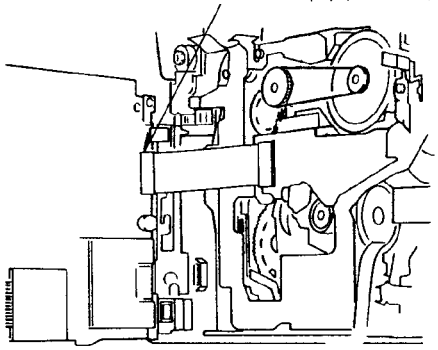


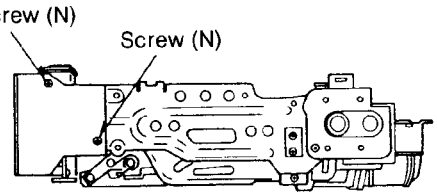
<<left view>>

Connector (N) (PS1001)

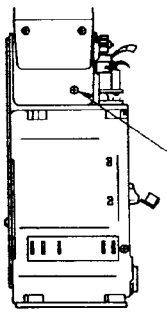
⑫



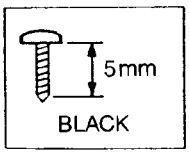

⑬



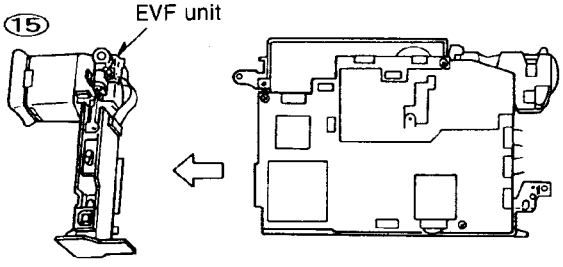

⑭



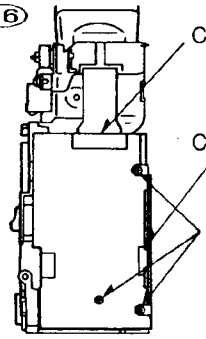

SCREW (N), (O)



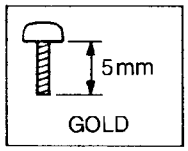

⑮



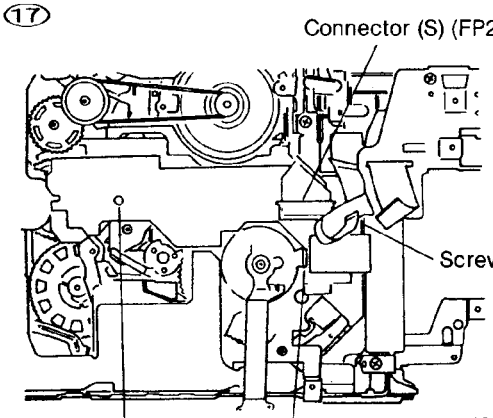

⑯



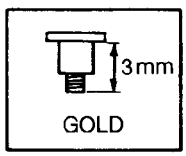

SCREW (P)



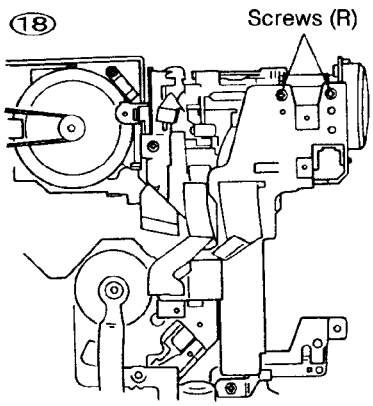

⑰



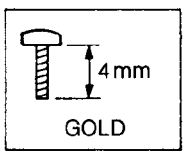

SCREW (Q)




⑱

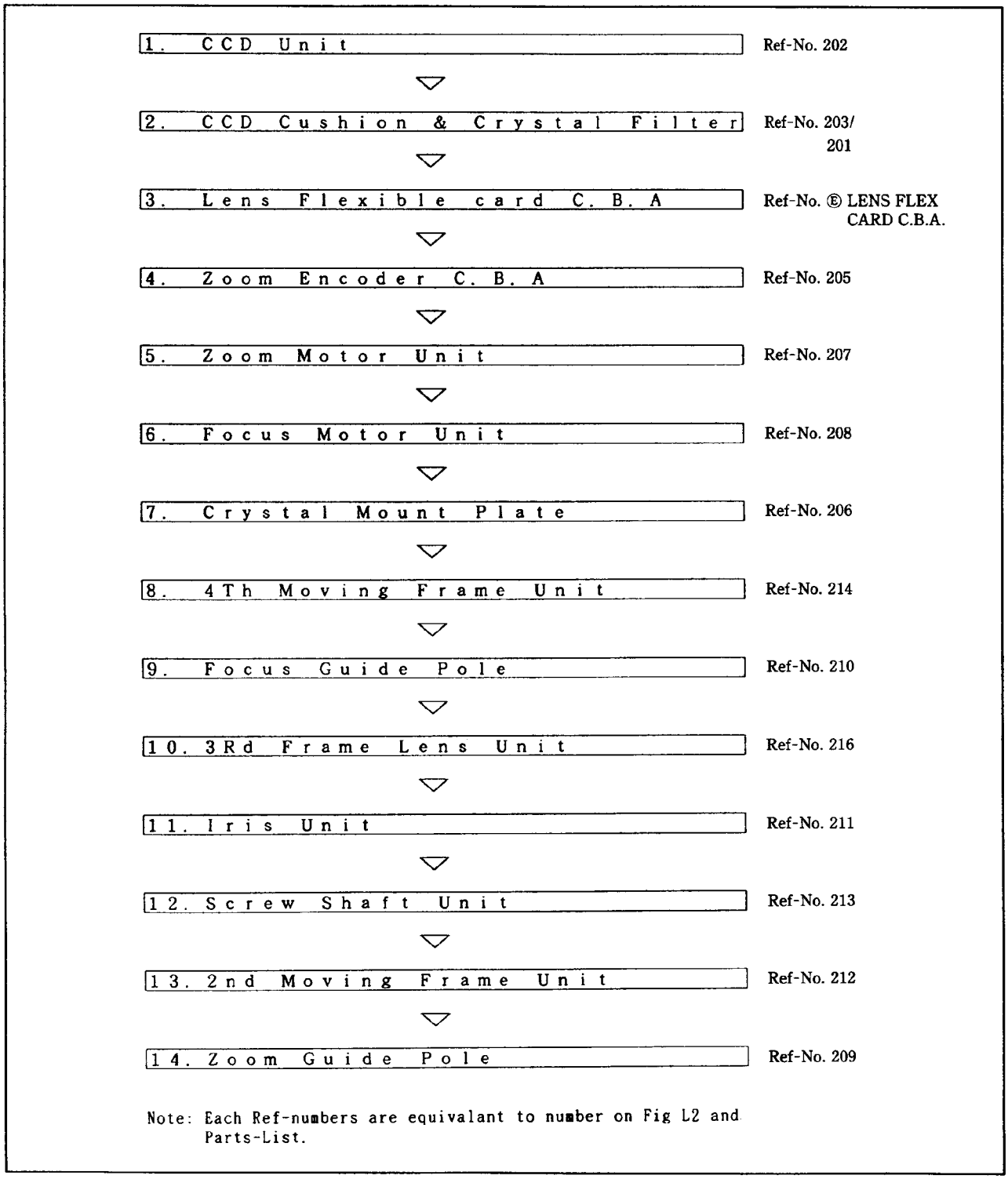



SCREW (R)



## 2-2. DISASSEMBLY PROCEDURES OF LENS UNIT

The following flowchart describes order or steps for removing the Lens Units and certain printed circuit boards in order to make access to the item needing service.
To reassemble the unit follow the steps in reverse order.




Note: Each Ref-numbers are equivalant to number on Fig L2 and Parts-List.

Fig. L1

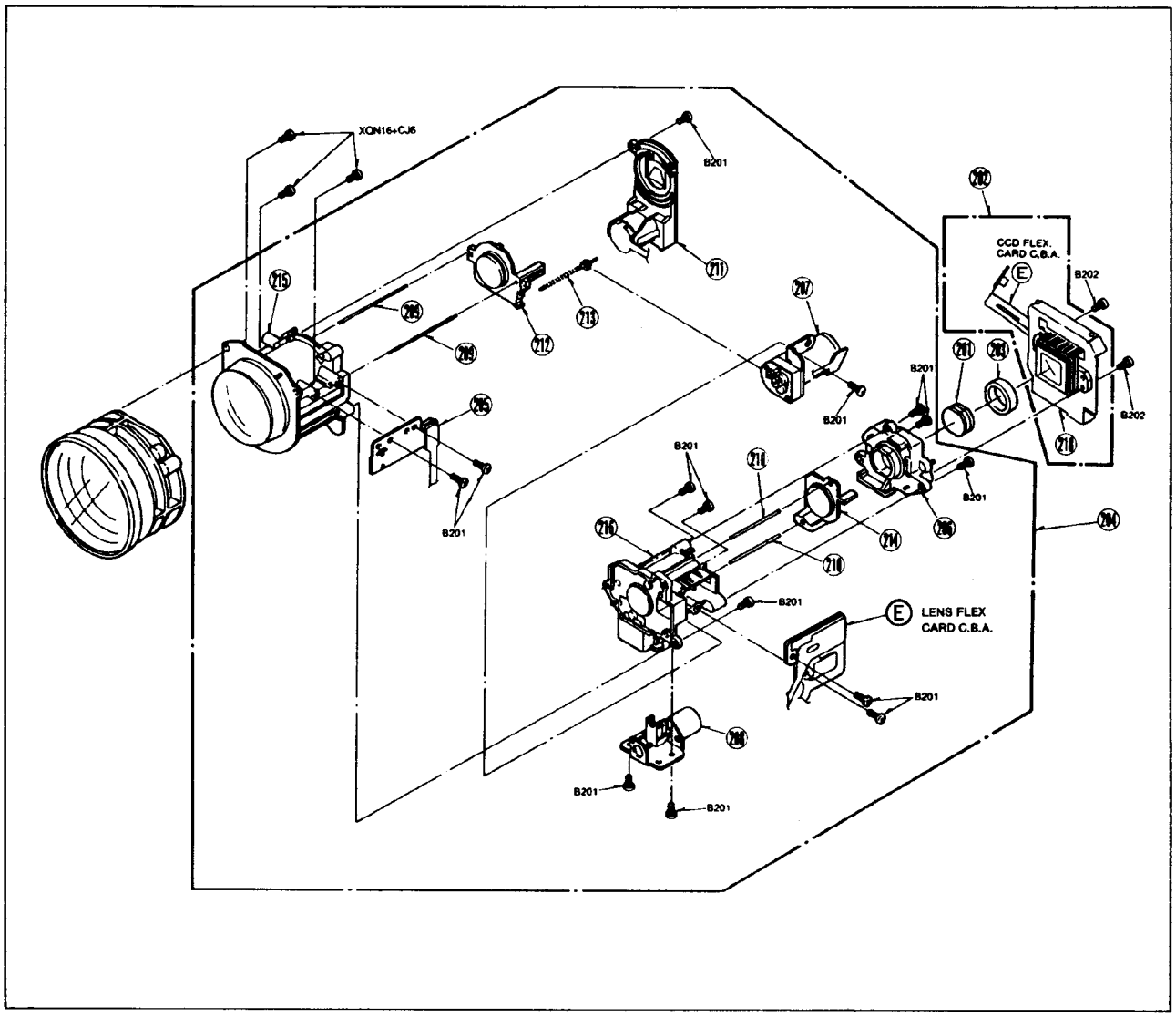

XQN16+CJ6
B201
202
CCD FLEX.
CARD C.B.A.
E
B202
215
206
213
212
209
207
205
201
204
B201
210
216
214
208
204
E
LENS FLEX
CARD C.B.A.
B201
204
B201
B201

Fig. L2

# 2-3. ELECTRICAL ADJUSTMENT PROCEDURES

TEST EQUIPMENT AND TOOLS

The following equipment are required for adjustment of the VTR & E.V.F section of VHS-Movie.

| | Item & Spec/Range | | Item & Spec/Range |
|---|---|---|---|
| 1 | VFK0839 & VFK0894 | 4 | Video Sweep Generator<br>Frequency Range: 0.0 ~50MHz<br>Frequency Range: 0.0 ~50MHz |
| 2 | Dual Trace Oscilloscop<br>Voltage Range : 0.01~50V<br>Frequency Range: 0.0 ~50MHz | 5 | Colour Monitor TV |
| 3 | Probe for Oscilloscop<br>Voltage Range : 0.01~50V<br>(10:1 or 1:1Probe) | 6 | Plastic Tip Driver |
| | | 7 | VHS-C Movie Alighment Tape(VFM8180HUPF) |
| | | 8 | VHS-C Blank Tape |
| | | 9 | Colour Bar Chart/Gray Scale Chart/Black & White Chart |

PREPARATION:

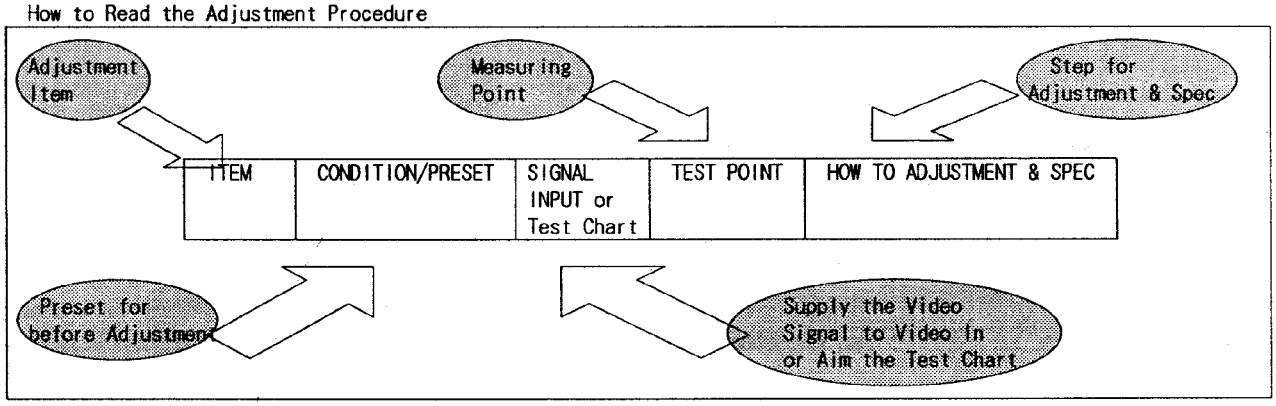
(A). Remove the Casing panels.

(B). Connect the Viewfinder to unit with Extension Cable VFK0839(30Pin). ⇨Please Refer to Fig. E1

Connect the Side Case L(Lith-Interface C.B.A) with Extension Cable VFK0894(5-Pin) ⇨Please Refer to Fig. E1

(C). The camera unit must be completely aligned befor viewfinder adjustment.

How to Read the Adjustment Procedure




Preparation for Electrical Adjustment

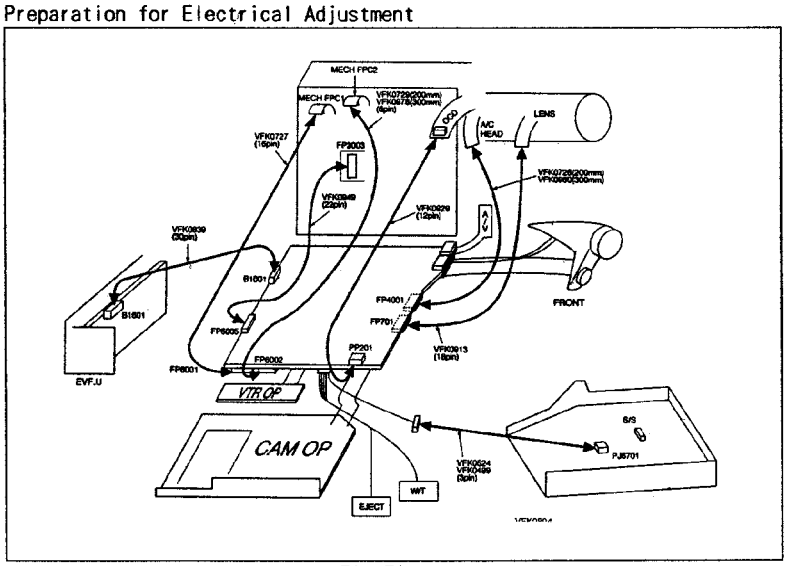



Fig. E1

Note: Triggering the Oscilloscope

To trigger the Oscilloscope, following test point is used.

H. Rate: Video Output

V. Rate: PP6004-6(Head Switching Signal)

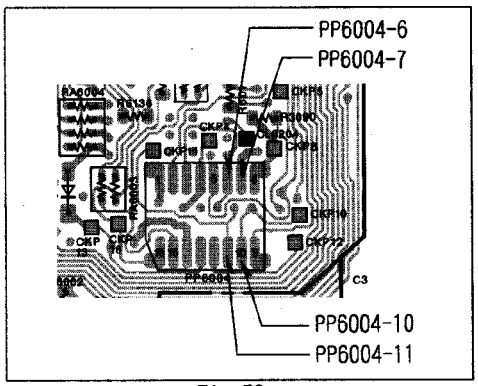



Fig. E2

## 2-3-1. ELECTRICAL ADJUSTMENT FOR VTR SECTION

| ITEM | CONDITION/PRESET | SIGNAL INPUT or Test Chart | TEST POINT | HOW TO ADJUSTMENT & SPEC |
|---|---|---|---|---|
| 1. YNR | 1. Playback the alignment tape (VFM8180HUPF)<br>2. Connect Oscilloscope to TL3004. | ——— | TL3004 | 1. Turn VR3001 so that signal level is minimized.<br>(Please refer to Fig. E3) |
| 2. HEAD AMP FREQUENCY RESPONCE | 1. Connect the jumper- Wire between PP6004⑦ and PP6004 ⑪, after that Colour Bar can be input through PP6004-⑩ (See to Fig. E4)<br>2. Set the Sweep generator as shown in Fig. E5.<br>3. Supply Sweep signal to PP6004-⑩ and the record the signal for few minutes<br>4. Play back the recorded signal.<br>5. Connect the Video Out to Oscilloscope. | Sweep signal to PP6004-⑩ | Video Out | 1. Turn VR3003 so that signal level at the 2MHz is within spec as shown in Fig. E6. |

## Fig For ELECTRICAL ADJUSTMENT OF VTR SECTION

YNR-Adjustment

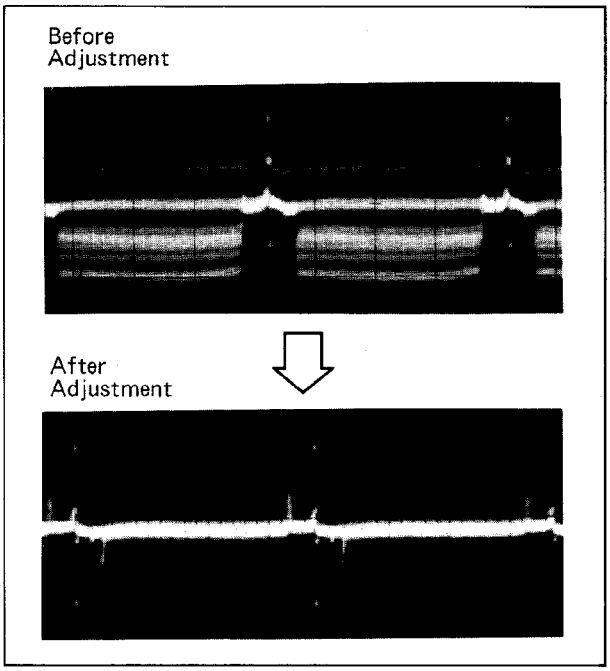



Fig. E3

INPUT POINT FOR SWEEP SIGNAL

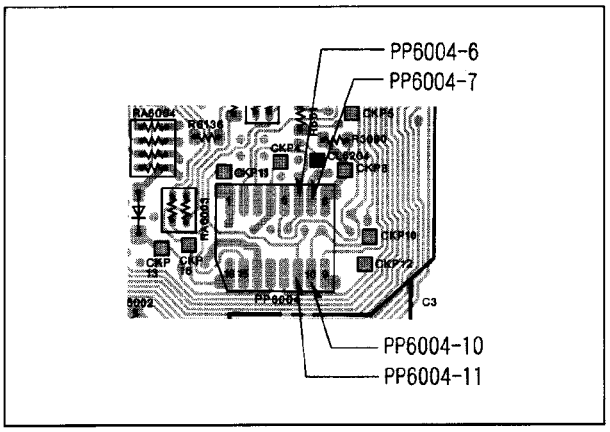



Fig. E4

Set Up for Sweep Signal

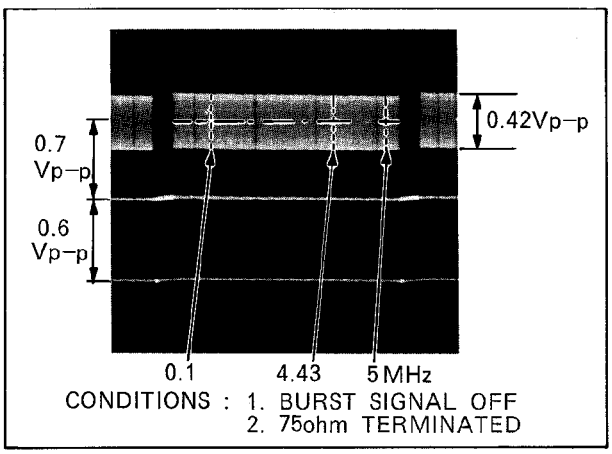



Fig. E5

Adjustment For Head Amp Frequency Responce

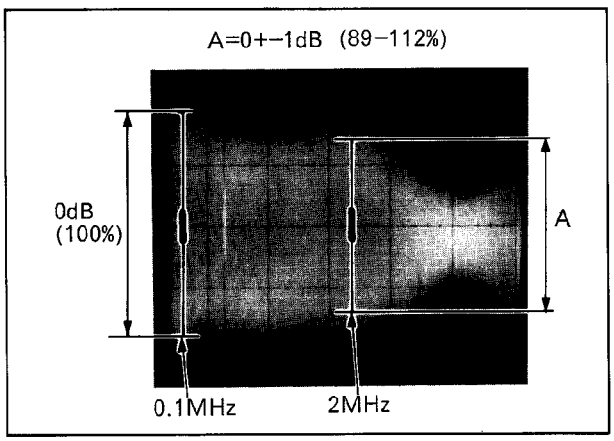



Fig. E6

## 2-3-2. ELECTRICAL ADJUSTMENT FOR COLOUR LCD EVF SECTION

Note: The camera unit must be completely aligned befor viewfinder adjustment.

| ITEM | CONDITION/PRESET | SIGNAL INPUT or Test Chart | TEST POINT | HOW TO ADJUSTMENT & SPEC |
|---|---|---|---|---|
| 1. POWER VOLTAGE | 1. Connect the Digital Volt Meter to TL804. | ——— | TL804. | 1. Turn VR809 so that the voltage at TL804 become 12.0 ±0.05V. |
| 2. PICTURE CETREING | 1. Aim the Camera at the Colour bar Chart. | Colour Bar Chart | E.V.F | 1. Turn VR808 until the picture on E.V.F is centre. |
| 3. BL PULSE WIDTH | 1. Aim the Camera at the Colour bar Chart.<br>2. Connect the oscilloscope to TL805. | Colour Bar Chart | TL805. | 1. Turn the VR812 so that the "T" becomes 7.8 ±0.1usec. (Please refer to Fig.E7). |
| 4. PEDESTAL LEVEL | 1. Aim the Camera at the Gray-Scale Chart.<br>2. Connec the jumper-wire between TL810 and GND.<br>3. Connect the oscilloscope to TL802. | Gray-Scale Chart | TL802. | 1. Turn the VR810 so that the "A" level becomes 2.6 ±0.1V. (Please refer to Fig.E8).<br>2. Remove the jumper-wire. |
| 5. COLOUR G LEVEL | 1. Aim the Camera at the Gray-Scale Chart.<br>2. Connec the jumper-wire between TL810 and GND.<br>3. Connect the oscilloscope to TL802. | Gray-Scale Chart | TL802. | 1. Turn the VR802 so that the "A" level becomes 2.2 ±0.1V. (Please refer to Fig.E9).<br>2. Remove the jumper-wire. |
| 6. TINT | 1. Aim the Camera at the Colour-bar Chart.<br>2. Connec the jumper-wire between TL810 and GND.<br>3. Connect the oscilloscope to TL801/TL803. | Colour-bar Chart | TL801.<br>TL803. | 1. Turn the VR804 so that the "A" level(TL801) is minimized. (Please refer to Fig.E10).<br>2. Turn the VR803 so that the "B" level(TL803) is minimized. (Please refer to Fig.E10).<br>3. Remove the jumper-wire. |
| 7. WHITE BALANCE | 1. Aim the Camera at the Gray-Scale Chart. | Gray-Scale Chart | E.V.F | 1. Turn the VR805 & VR806 so that the pictur on E.V.F become black and white. |

### Fig For ELECTRICAL ADJUSTMENT OF COLOUR LCD EVF SECTION

BL Pulse Adjustment

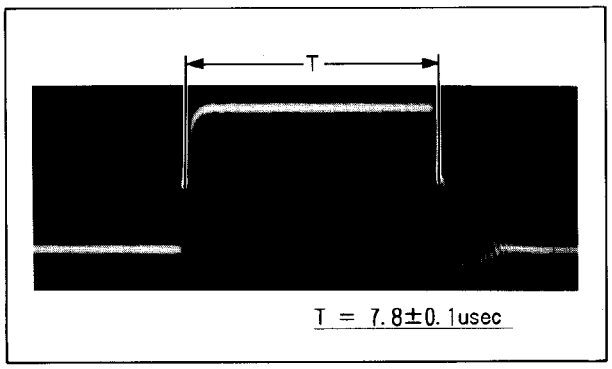



Fig.E7

Pedestal Leve Adjustment

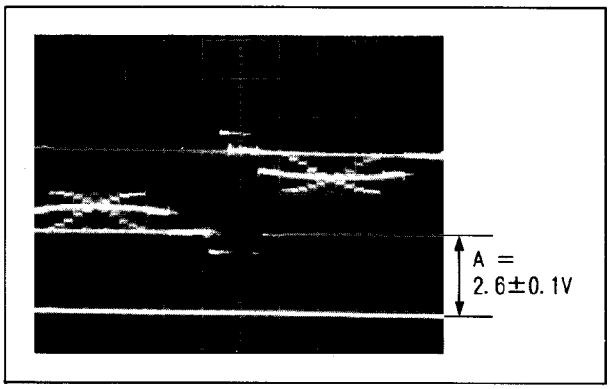



Fig.E8

Colour G Level Adjustment

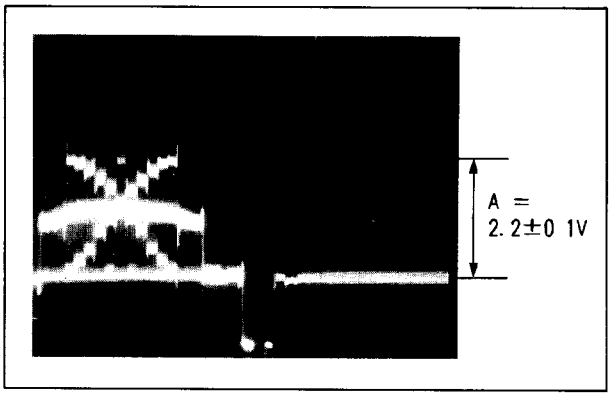



Fig. E9

Tint Adjustment

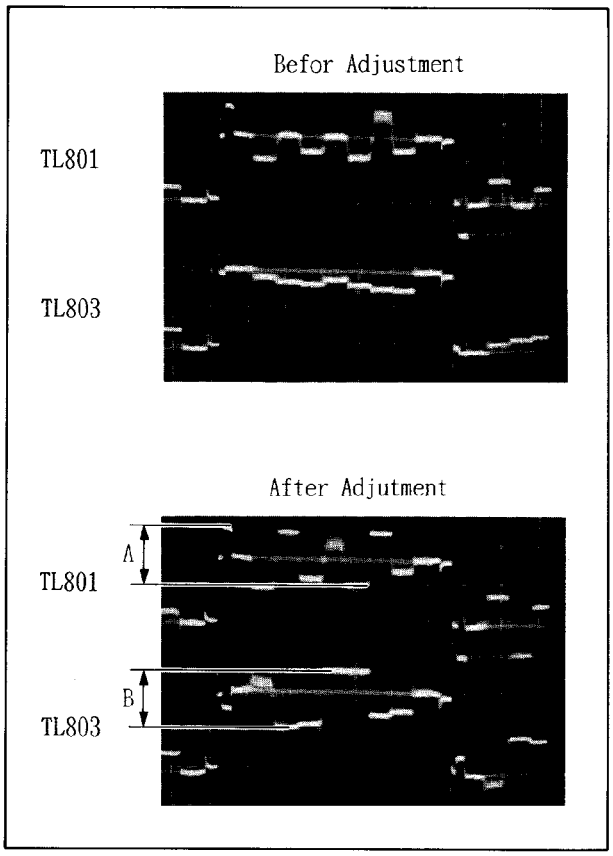
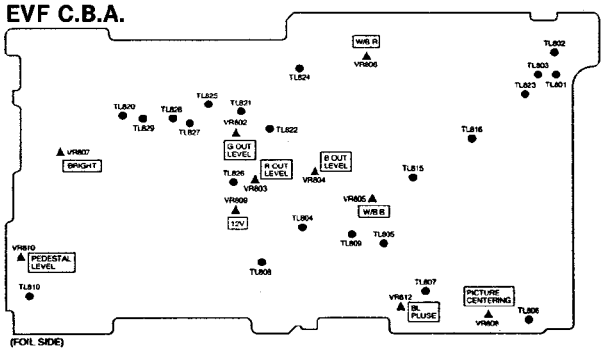


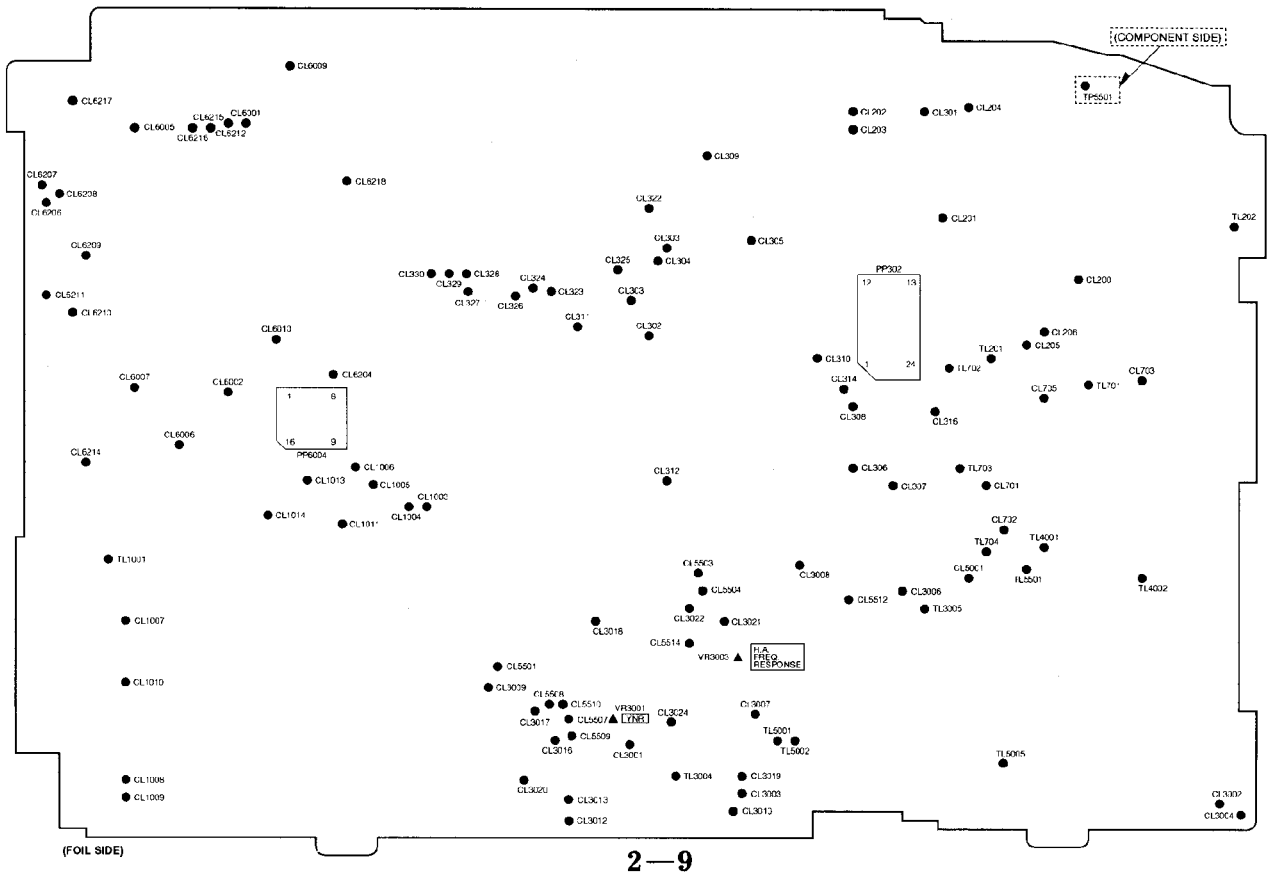

Fig. E10

# LOCATION OF TEST POINTS & CONTROLS

## EVF C.B.A.




## MAIN C.B.A.



# 3-1. ABBREVIATIONS

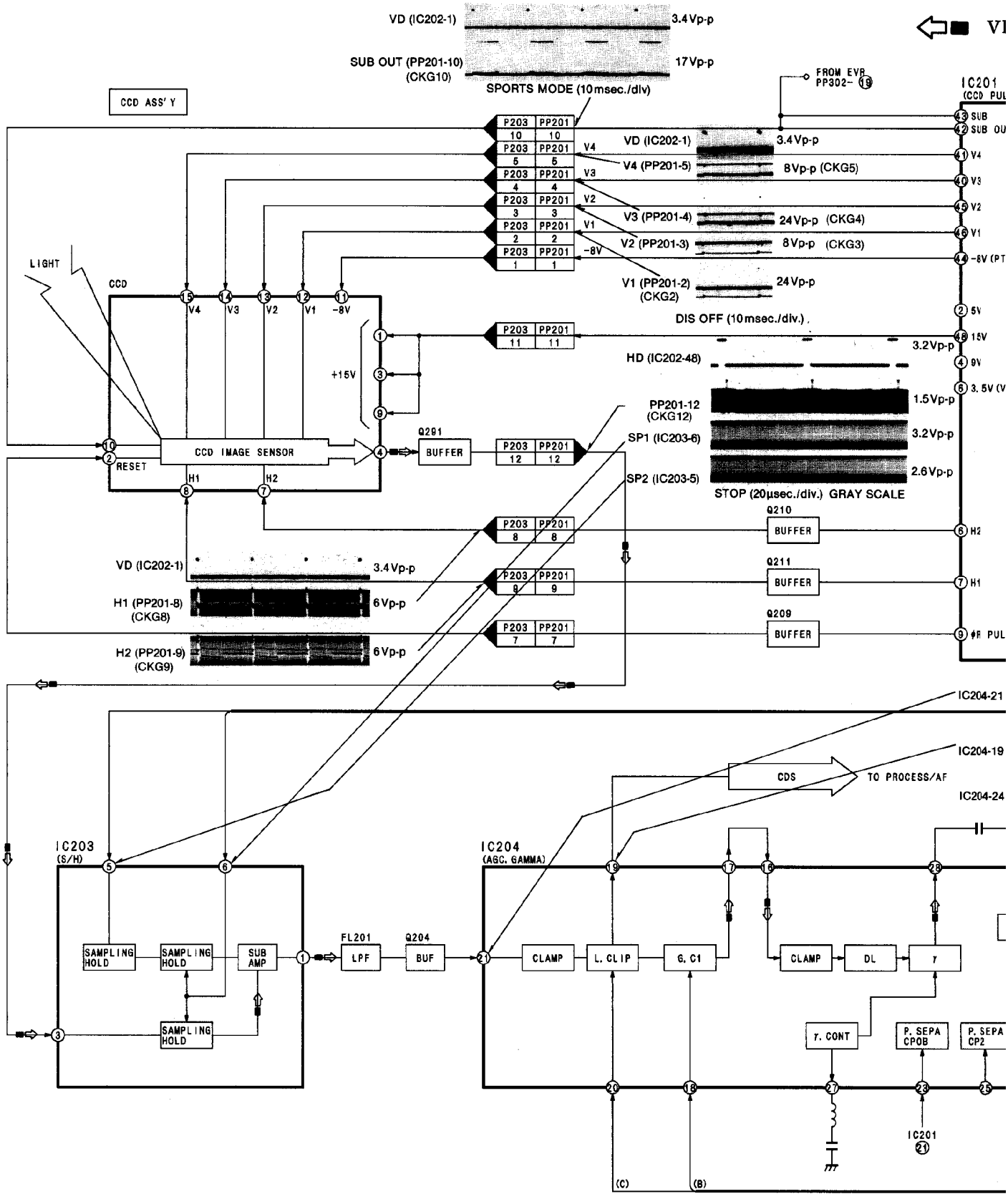
| INITIAL/LOGO | | ABBREVIATIONS |
|---|---|---|
| | 3R3V | 3.3V |
| A | A.TR | AUTO TRACKING |
| | ABSF | FOCUS ENCODER INPUT |
| | ADCLK | A/D CLOCK |
| | ADCNT | A/D CONTROL |
| | ADREC | AUDIO DELAIED REC |
| | ADUB | AUDIO DUBBING |
| | AE | AUTO EXPOSE |
| | AECNT | AUTO EXPOSE CONTROL |
| | AEIRQ | AUTO EXPOSE INTERRUPT REQUEST |
| | AFADE | AUDIO FADE |
| | AGCCNT | AGC CONTROL |
| | AGS | ANTI GROUND SHOOTING |
| | ALCCNT | ALC CONTROL |
| | ALCMAIN | ALC DRIVE |
| | AMUT | AUDIO MUTE |
| | AORP | AUDIO OVER LAP PULSE |
| | APS | AUTO POWER SAVE |
| | ARTV | ARTIFICAL VERTICAL SYNC |
| | ATR | AUTO TRACKING |
| | AWTB | AUTO WHITE BALANCE B-Y |
| | AWTR | AUTO WHITE BALANCE R-Y |
| B | B-Y KB | B-Y CARRIER BALANCE |
| | BACK | BACK-UP |
| | BATT | BATTERY |
| | BFA | BURST FLUG FOR ENCODER |
| | BFO/BFI | BURST FLUG INPUT/OUTPUT |
| | BL | BACK LIGHT |
| | BLDIN | BACK LIGHT DRIVE INPUT |
| | BLDOUT | BACK LIGHT DRIVE OUTPUT |
| | BLK | BLANKING PULSE |
| | BM | BALANCED MODULATOR |
| | BUF | BUFFER |
| C | CAPVM | CAPSTAN MOTOR CURRENT |
| | CAP R/S/F | CAPSTAN REVEASE/STOP/FORWARD |
| | CCW | COUTER CLOCKWISE |
| | CDS | CORRELATE DOUBLE SAMPLING SIGNAL |
| | CFM 1~4 | CHROMINANCE FIELD MEMORY |
| | CGC | CHROMINANCE GAIN |
| | CH1 | Channel 1(Odd Field) |
| | CHR MIX | CHARACTER MIX |
| | CK or CLK | CLOCK |
| | CLK2 | CLOCK 2(824XFH: 12.875MHz) |
| | CFEM | CHORMINACE MEMORY SIGNAL |
| | CMO | CHROMA MEMORY OUTPUT |
| | CO0~7 | CHORMO OUTPUT(DIGITAL) |
| | CP | CLAMP PULSE |
| | CPOB | OB CLAMP PULSE |
| | CS | CHIP SELECT |
| | CSEL1~2 | CLOCK PHASE SELECET |
| | CTSW | CROSSTALK SWITCH |
| | CW | CLOCWISE |
| | CYLVM | CYLINDER MOTOR CURRENT or POWER |
| D | D MODE0~2 | DIGITAL MODE SWITCH SIGNAL |
| | DAC | DIGITA/ANALOG CONVERTER |

| INITIAL/LOGO | | ABBREVIATIONS |
|---|---|---|
| D | D0~D8(D9) | VIDEO OUT(DIGITAL 8 or 9 BIT) |
| | DCLR | DIGITAL CLEAR |
| | DICLK | DIGITAL CLOCK |
| | DISCS | DIS CHIP SELECT |
| | DL | DELAY LINE |
| | DRK | DARK(LPF SWITCH FOR AUTO FOCUS) |
| | DS 1~2 | DOUBLE SAMPLING PULSE |
| | DSP | DIGITAL SIGNAL PROCESS |
| | DZ | DIGITAL ZOOM |
| | DZ/OZ | DIGITAL ZOOM/OPTICAL ZOOM |
| E | ECM | ELECTRIC CONDENCER MIC |
| | EEPROM | ELECTRIC ERASABLE PROGRAMABLE-READ |
| | ($E^2$ PROM) | ONLY MEMORY |
| | ENV | ENVELOPE DITECT |
| | EQ | EQUALIZER |
| | EZOOM | ELECTRIC ZOOM |
| F | FAR | FAR(FOCUS) |
| | FCK | CLOCK |
| | FENC | FOCUS ENCODER |
| | FH2B | FH/2(15.625KHz÷2 =7.8125KHz) |
| | FM CS | CHIP SELECT FOR FM-AUDIO |
| | FM MUTE | FM AUDIO MUTE |
| | FM0~7(8) | FIELD MEMORY INPUT 8BIT(or 9BIT) |
| | FMD REC | FM AUDIO DELAYED REC |
| | FMOEM | FIELD MEMORY ENABLE |
| | FNO | F VALUE |
| G | GCNT | GAIN CONTROL |
| H | H1~H2 | H.CCD DRIVE PULSE |
| | H.A SW | HEAD AMP SW |
| | HBRST | HIGH BRIGHT SET |
| | HCLR | HIGH CLEAR |
| | HEX | HEXADECIMAL |
| | HLT | HIGHT BRIGHT SIGNAL |
| I | INTER | INTERVAL RECORDING |
| | IOU | R-Y ANALOGUE SIGNAL OUTPUT |
| | IOV | B-Y ANALOGUE SIGNAL OUTPUT |
| | IRQ | INTERRUPT REQUEST |
| | IRIS/SH | IRIS/SHUTTET CONTROL |
| K | KANDO | DIGITAL GAIN UP |
| L | LD | LOAD PULSE |
| | LEDCNT | LED CONTROL |
| | LI-BATT | LITHIUM BATTERY |
| | LSB | LEAST SIGNFICANT BIT |
| | LVL | LPF SWITCH FOR AUTO FOCUS |
| M | MD | MODILATOR |
| | MFF | MANUAL FOCUS FAR |
| | MFN | MANUAL FOCUS NEAR |
| | MSB | MOST SIGNFICANT BIT |
| | MIX N.R.D | NON REC DATA MIX |

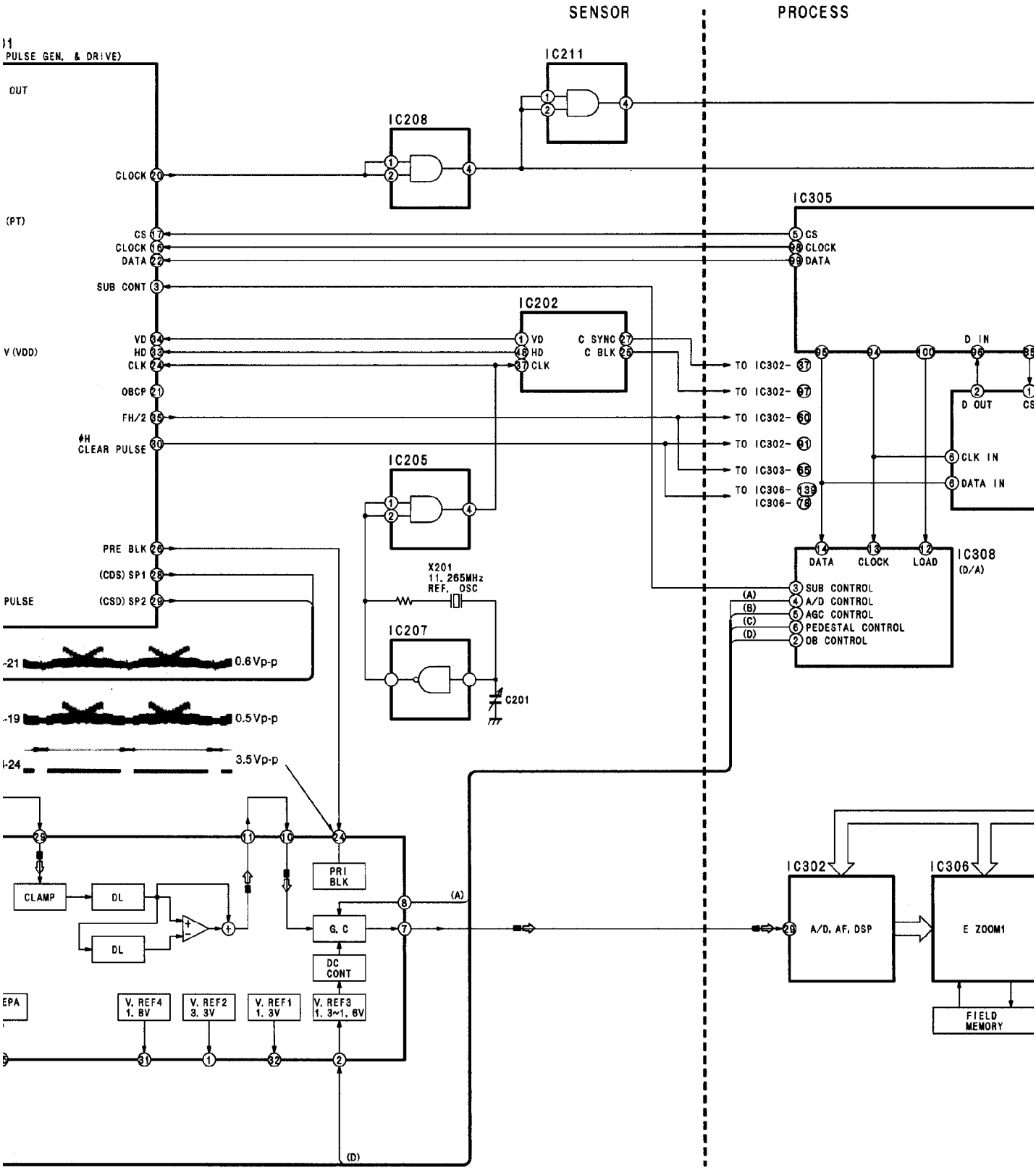
| INITIAL/LOGO | | ABBREVIATIONS |
|---|---|---|
| N | N/F | NEAR/FAR(FOCUS) |
| | N/P | NTSC/PAL |
| | NC | NO CONNECTION |
| | NC1~3 | NPN TRANSISTOR C-SIDE |
| | NDE | NON LINER DE-EMPHAIS |
| | NEAR | NEAR(FOCUS) |
| | NLE | NON LINER EMPHASIS |
| | NRD | NON REC DATA |
| | NRDBLK | NON REC DATA BLNKING |
| | NRE | READ ENABLE INPUT(LOW ACTIVE) |
| | NWE | WRITE ENABLE(LOW ACTIVE) |
| O | OBCNT | OPTICAL BLACK CONTROL |
| | OE | OUTPUT ENABLE |
| | OP | OPERATIONAL AMP OUTPUT |
| | OSD | ON SCREEN DISPLAY |
| P | PB1~3 | PNP TRANSITOR B-SIDE |
| | PBLK | PRE-BLANKING |
| | PCBM(B-Y) | B-Y CARRIER BALANCE |
| | PCBM(R-Y) | R-Y CARRIER BALANCE |
| | PEDECNT | PEDESTAL CONTROL |
| | PORIN or POR | POWER ON RESET |
| | PREAP | PRE-AMP |
| | PREBLK | PRE-BLANKING |
| | PT | PROTECT FOR V VOLTAGE |
| | PWM | PULSE WIDTH MODULATOR |
| R | R/B | READT/BUSY |
| | R-Y KB | R-Y CARRIER BALANCE |
| | RAD | READ ADDRESS DATA |
| | RAE | READ ADDRESS ENABLE |
| | RE | READ ENABLE |
| | RE | ROTARY ERASE HEAD |
| | RERASE | ROTARY ERASE HEAD |
| | RST | RESET |
| | RSTPWD | RESET POWER DOWN INPUT |
| | RSTR | RESET READ |
| | RSTW | RESET WRITE |
| S | S/S | START/STOP |
| | SBO | SERIAL OUTPUT |
| | SBD | SERIAL DATA |
| | SCLK | SERIAL CLOCK |
| | SCR | SERCH |
| | SDET | S-VHS DETECT |
| | SH/IRIS | SHUTTER/IRIS CONTROL |
| | STAB | S-VHS TAB SWITCH |
| | STRB | STRBO MODE |
| | SUB CNT | SUB CONTROL |
| T | TBC | TIME BASE CORRECTOR |
| | TBC. C OUT | TIME BASE CORRECTOR CHROMA OUT |
| | TBC. V OUT | TIME BASE CORRECTOR VIDEO OUT |
| | TL | TORQUE LIMIT |

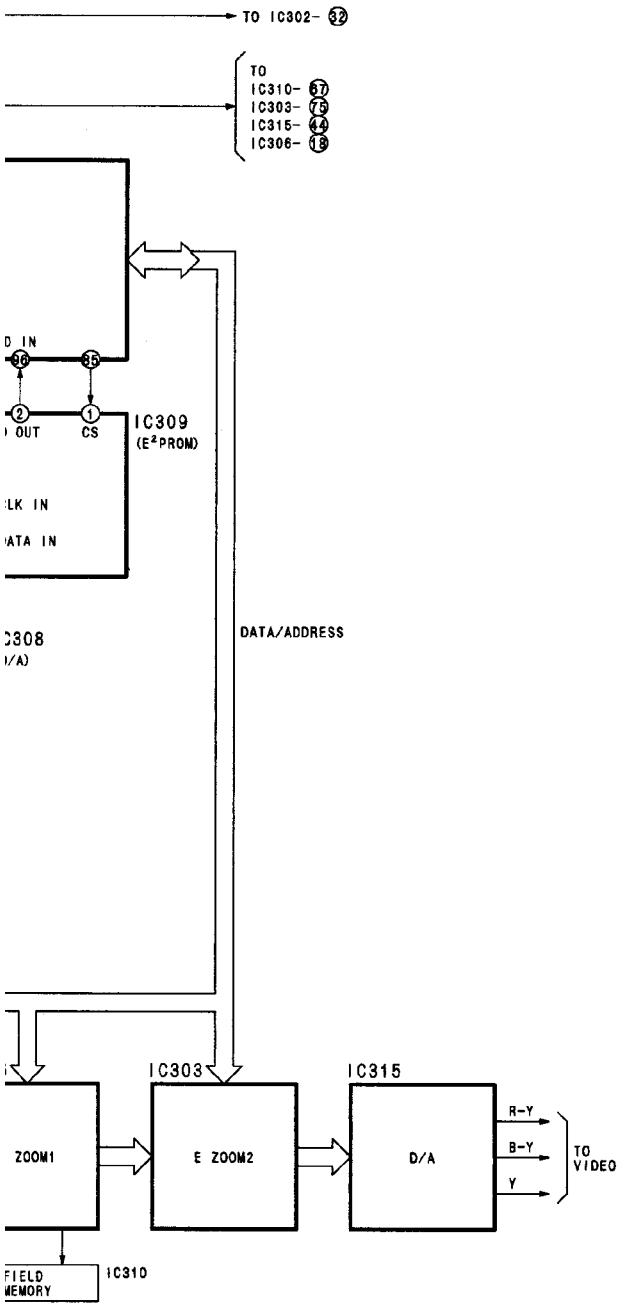
| INITIAL/LOGO | | ABBREVIATIONS |
|---|---|---|
| T | TRFIX | TRACKING FIX |
| | TRIWAVE | TRIANGLE WAVE |
| | TRP | TRAP |
| U | U/V SECT | R-Y/B-Y SELECT SIGNAL |
| | UVSEL | R-Y/B-Y SELECT SIGNAL |
| V | V1~V4 | V. CCD DRIVE PULSE |
| | VB | VH FILTER SWITCHING. |
| | VCO | VOLTAGE CONTROL OSCILLTOR |
| | VCTRL | VOLTAGE CHARGE CONTROL |
| | VD | VERTICAL DRIVE PULSE |
| | VDREC | VIDEO DELAYED REC |
| | VDDX | X DRIVE POWER FOR COLOUR LCD |
| | VDDXY | XY DRIVE POWER FOR COLOUR LCD |
| | VDDY | Y DRIVE POWER FOR COLOUR LCD |
| | VIN | VIDEO IN(ANALOGUE) |
| | VITC | VETICAL INTERVAL TIME CODE |
| | VMD1~VMD3 | VELOCITY MODE DATA(SHUTTER) |
| | VMVH | VH FILTER SWITCHING |
| | VORP | VIDEO OVERLAP |
| | VRB | VOLTAGE REFERENCE BOTTOM(1. 3V) |
| | VREF1R3V | REFERENCE VOLTAGE 1. 3V |
| | VREF3R3V | REFERENCE VOLTAGE 3. 3V |
| | VREFH | REFERENCE VOLTAGE HIGH SIDE |
| | VREFL | REFERENCE VOLTAGE LOW SIDE |
| | VRI | REFERENCE VOLTAGE INPUT |
| | VRO | REFERENCE VOLTAGE OUTPUT |
| | VRT | VOLTAGE REFERENCE TOP(3. 3V) |
| | VSS | VERTICAL SYNC SIGNAL |
| | VSSX | X DRIVER POWR FOR COLOUR LCD |
| | VSSXY | X-Y DRIVER POWR FOR COLOUR LCD |
| W | WAD or WAE | WRITE ADDRESS ENABLE |
| | WE | WRITE ENABLE |
| | WHD | WIDE HORIZONTAL DRIVE PULSE |
| Y | Y0~Y7(Y8) | 8BIT(9BIT)LUMINANCE DIGITAL SIGNAL |
| | YNCST | NOISE CANCELER |
| | YNR | NOISE REDUCTION |
| Z | Z ENC | ZOOM ENCODER |
| | Z-MIC | ZOOM MIC |
| | ZENC1/ZENC4 | ZOOM ENCEODER OUTPUT |
| | ZMTER | ZOOM MOTOR TELE SIDE |
| | ZMT(+)/(-) | ZOOM MOTOR (+)/(-) |
| | ZMW | ZOOM MOTOR WIDE SIDE |

# 3-2. SENSOR BLOCK DIAGRAM



## VIDEO SIGNAL






| SYMBOL | TRUTH VALUE TABLE |
|---|---|

**INVERTER**

| IN | (a) | H | L |
|---|---|---|---|
| OUT | (b) | L | H |

**COMPARTOR**

| IN | (a) / (b) | (a)>(b) | (a)<(b) |
|---|---|---|---|
| OUT | (c) | H | L |

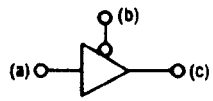
**AND CIRCUIT**

| IN | (a) | L | L | H | H |
|---|---|---|---|---|---|
| | (b) | L | H | L | H |
| OUT | (c) | L | L | L | H |

**OR CIRCUIT**

| IN | (a) | L | L | H | H |
|---|---|---|---|---|---|
| | (b) | L | H | L | H |
| OUT | (c) | L | H | H | H |

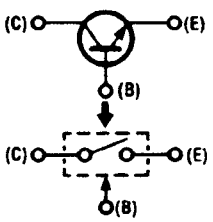
**THREE STATES BUFFER**




| IN | (a) | H | L | H or L |
|---|---|---|---|---|
| | (b) | L | L | H |
| OUT | (c) | H | L | ※ |

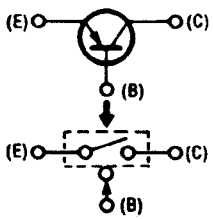
※ High Impedance

**TR. SW (NPN TYPE)**



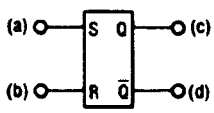

| BASE | H | L |
|---|---|---|
| TR. SW | ON | OFF |

**TR. SW (PNP TYPE)**




| BASE | H | L |
|---|---|---|
| TR. SW | OFF | ON |

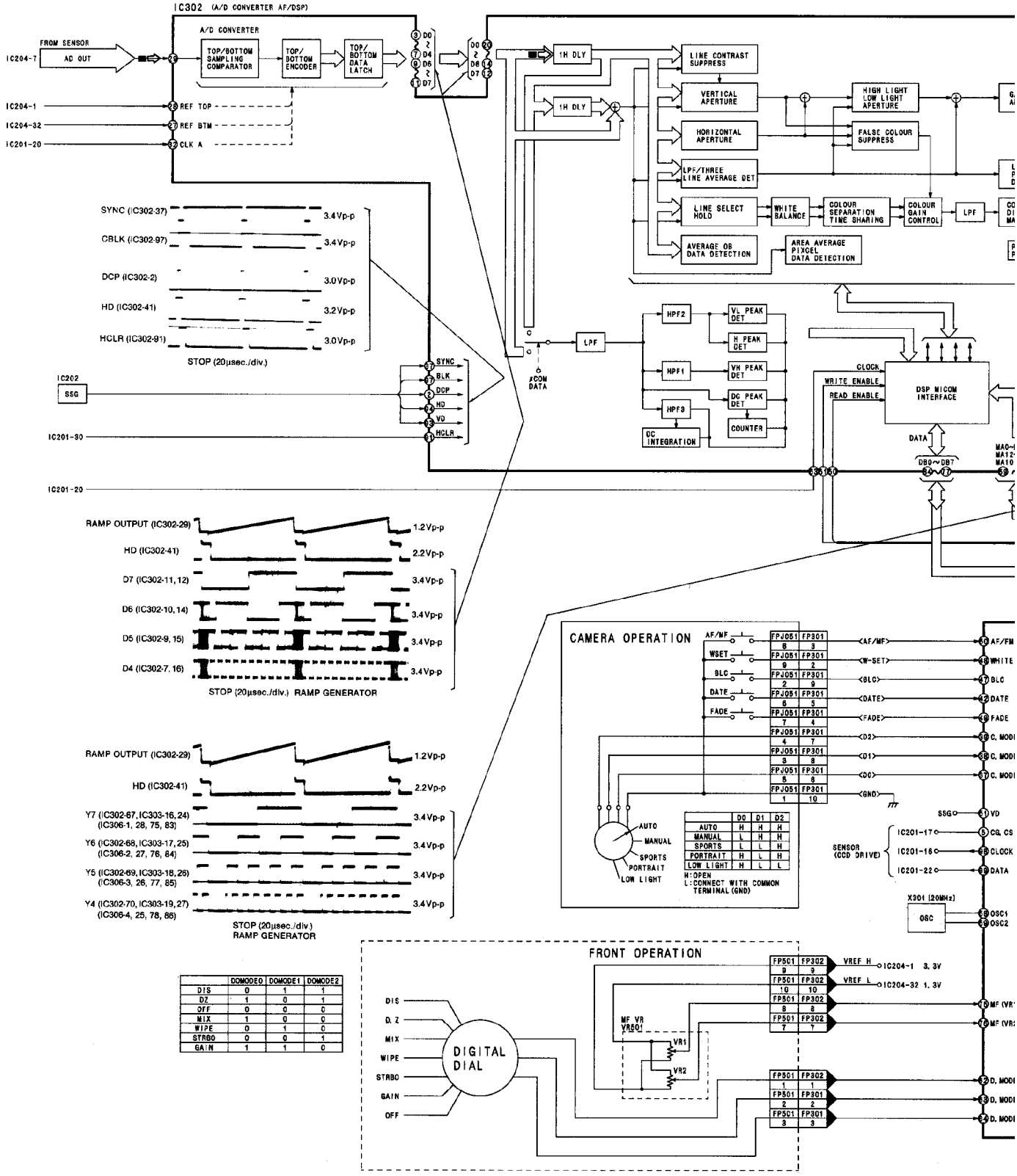
**R-S TYPE FLIP-FLOP**



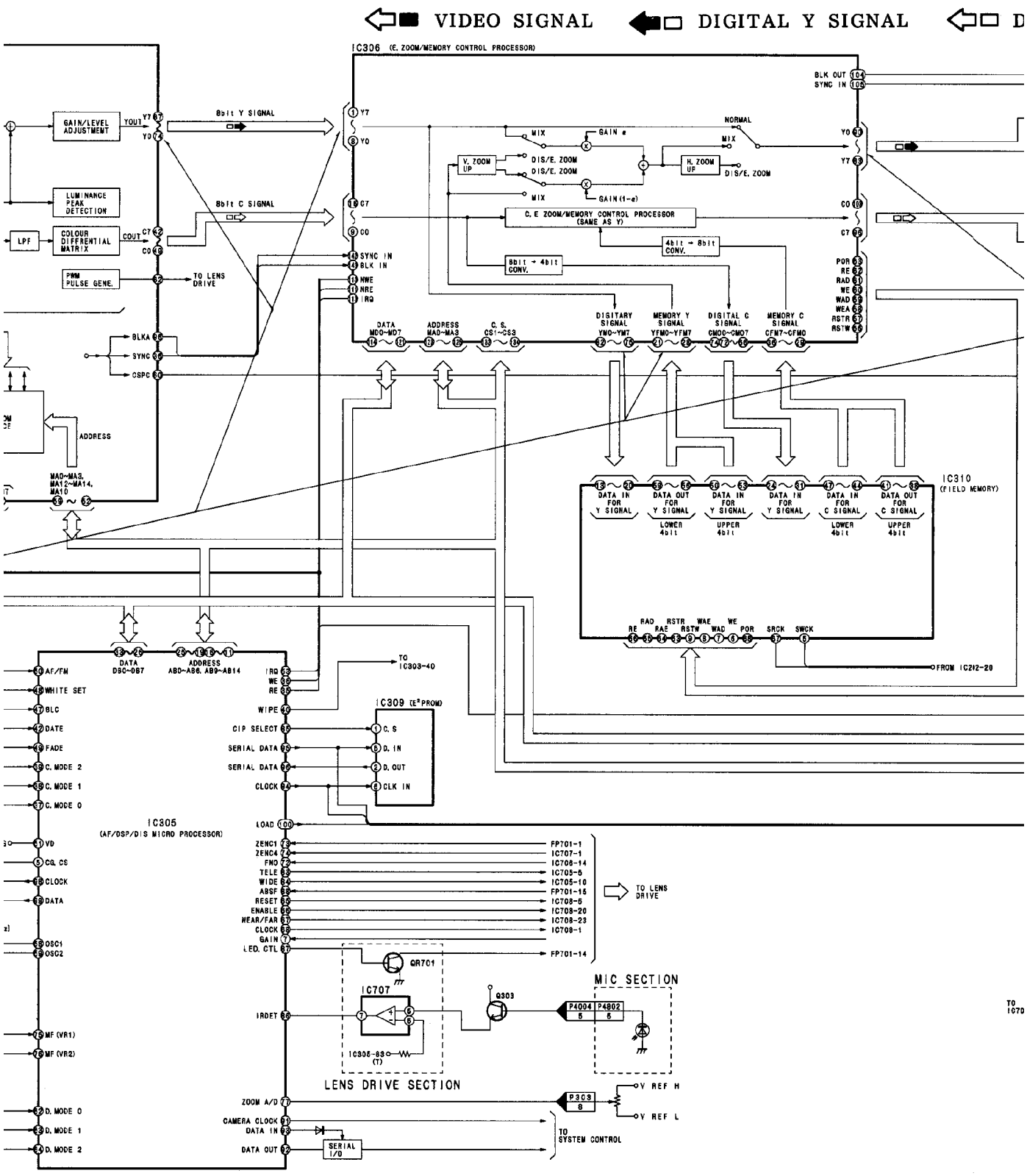

| IN | (a) | L | L | ⎍ |
|---|---|---|---|---|
| | (b) | L | ⎍ | L |
| OUT | (c) | ※ | L | H |
| | (d) | ◆ | H | L |

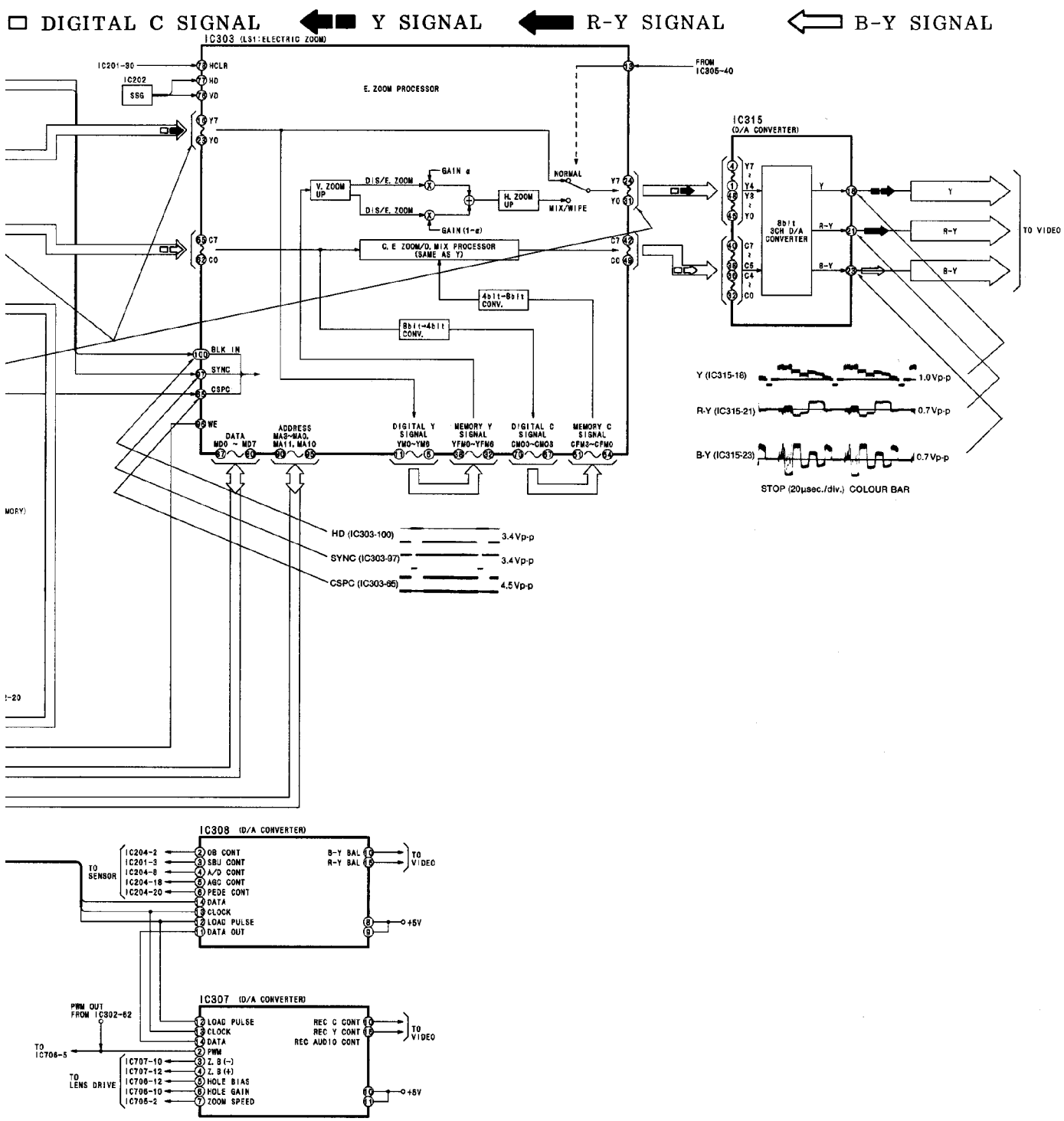
※ Initial condition is maintained.
◆ Initial condition is reversed.

# 3-3. PROCESS BLOCK DIAGRAM

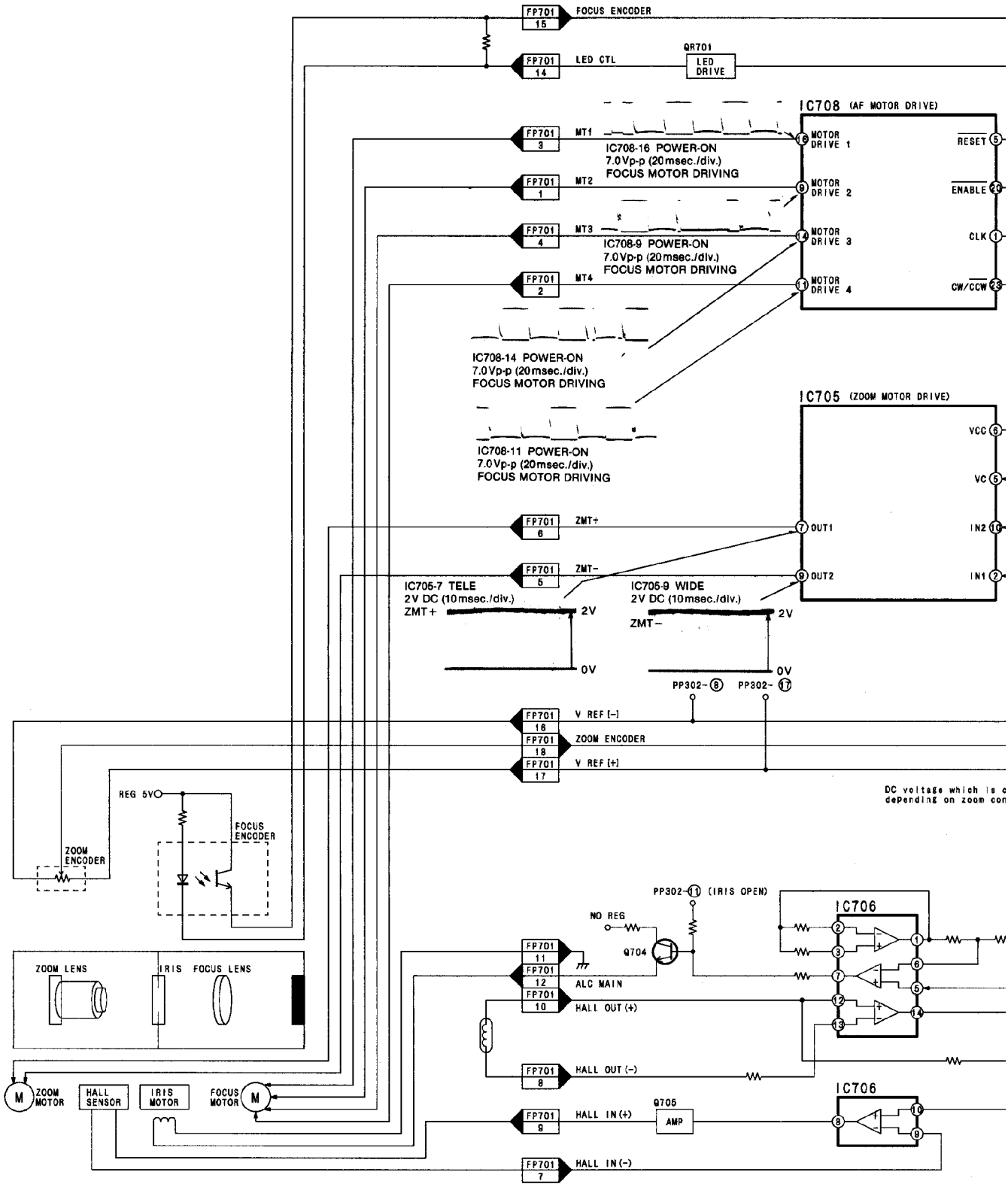


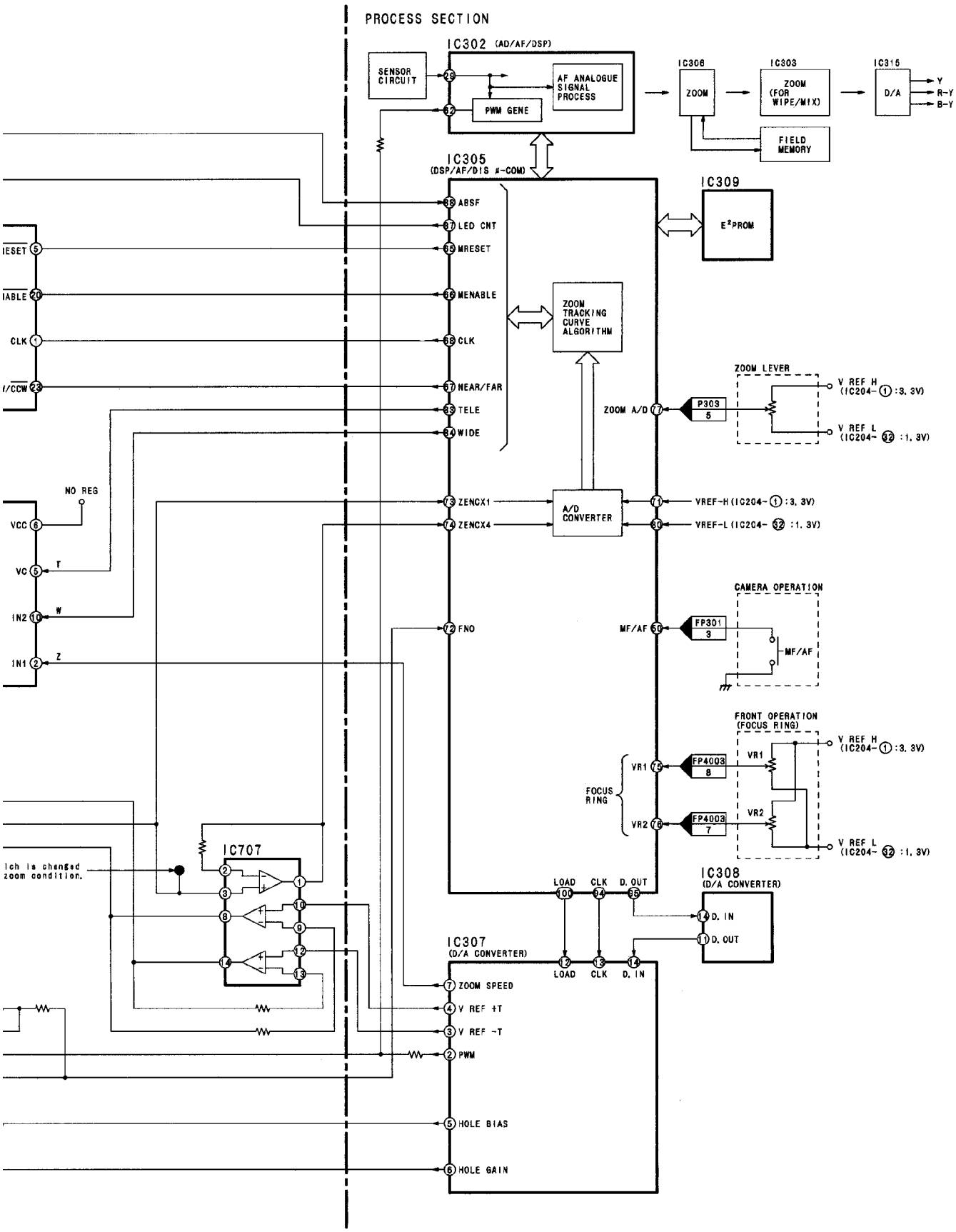

| | DOMODE0 | DOMODE1 | DOMODE2 |
|---|---|---|---|
| DIS | 0 | 1 | 1 |
| DZ | 1 | 0 | 1 |
| OFF | 0 | 0 | 0 |
| MIX | 1 | 0 | 0 |
| WIPE | 0 | 1 | 0 |
| STRBO | 0 | 0 | 1 |
| GAIN | 1 | 1 | 0 |


VIDEO SIGNAL
DIGITAL Y SIGNAL
IC306 (E. ZOOM/MEMORY CONTROL PROCESSOR)
GAIN/LEVEL ADJUSTMENT
LUMINANCE PEAK DETECTION
COLOUR DIFFERENTIAL MATRIX
LPF
PWM PULSE GENE.
8bit Y SIGNAL
8bit C SIGNAL
TO LENS DRIVE
ADDRESS
MA0~MA3, MA12~MA14, MA10
BLK OUT
SYNC IN
MIX
GAIN α
GAIN (1-α)
NORMAL
V. ZOOM UP
H. ZOOM UP
DIS/E. ZOOM
C. E ZOOM/MEMORY CONTROL PROCESSOR (SAME AS Y)
4bit → 8bit CONV.
8bit → 4bit CONV.
DATA MD0~MD7
ADDRESS MA0~MA3
C. S. CS1~CS3
DISITARY SIGNAL YM0~YM7
MEMORY Y SIGNAL YFM0~YFM7
DIGITAL C SIGNAL CM00~CM07
MEMORY C SIGNAL CFM7~CFM0
IC310 (FIELD MEMORY)
DATA IN FOR Y SIGNAL
DATA OUT FOR Y SIGNAL
DATA IN FOR Y SIGNAL
DATA IN FOR Y SIGNAL
DATA IN FOR C SIGNAL
DATA OUT FOR C SIGNAL
LOWER 4bit
UPPER 4bit
FROM IC212-20
IC305 (AF/DSP/DIS MICRO PROCESSOR)
DATA D80~D87
ADDRESS AB0~AB6, AB9~AB14
TO IC303-40
IC309 (E²PROM)
C. S
D. IN
D. OUT
CLK IN
AF/FM
WHITE SET
BLC
DATE
FADE
C. MODE 2
C. MODE 1
C. MODE 0
VD
CG. CS
CLOCK
DATA
OSC1
OSC2
MF (VR1)
MF (VR2)
D. MODE 0
D. MODE 1
D. MODE 2
IRQ
WE
RE
WIPE
CIP SELECT
SERIAL DATA
SERIAL DATA
CLOCK
LOAD
ZENC1
ZENC4
FNO
TELE
WIDE
ABSF
RESET
ENABLE
NEAR/FAR
CLOCK
GAIN
LED. CTL
IRDET
ZOOM A/D
CAMERA CLOCK
DATA IN
DATA OUT
SERIAL I/O
FP701-1
IC707-1
IC708-14
IC705-5
IC705-10
FP701-15
IC708-5
IC708-20
IC708-23
IC708-1
FP701-14
TO LENS DRIVE
QR701
IC707
Q303
P4004
P4802
MIC SECTION
IC305-83 (T)
LENS DRIVE SECTION
P303
V REF H
V REF L
TO SYSTEM CONTROL

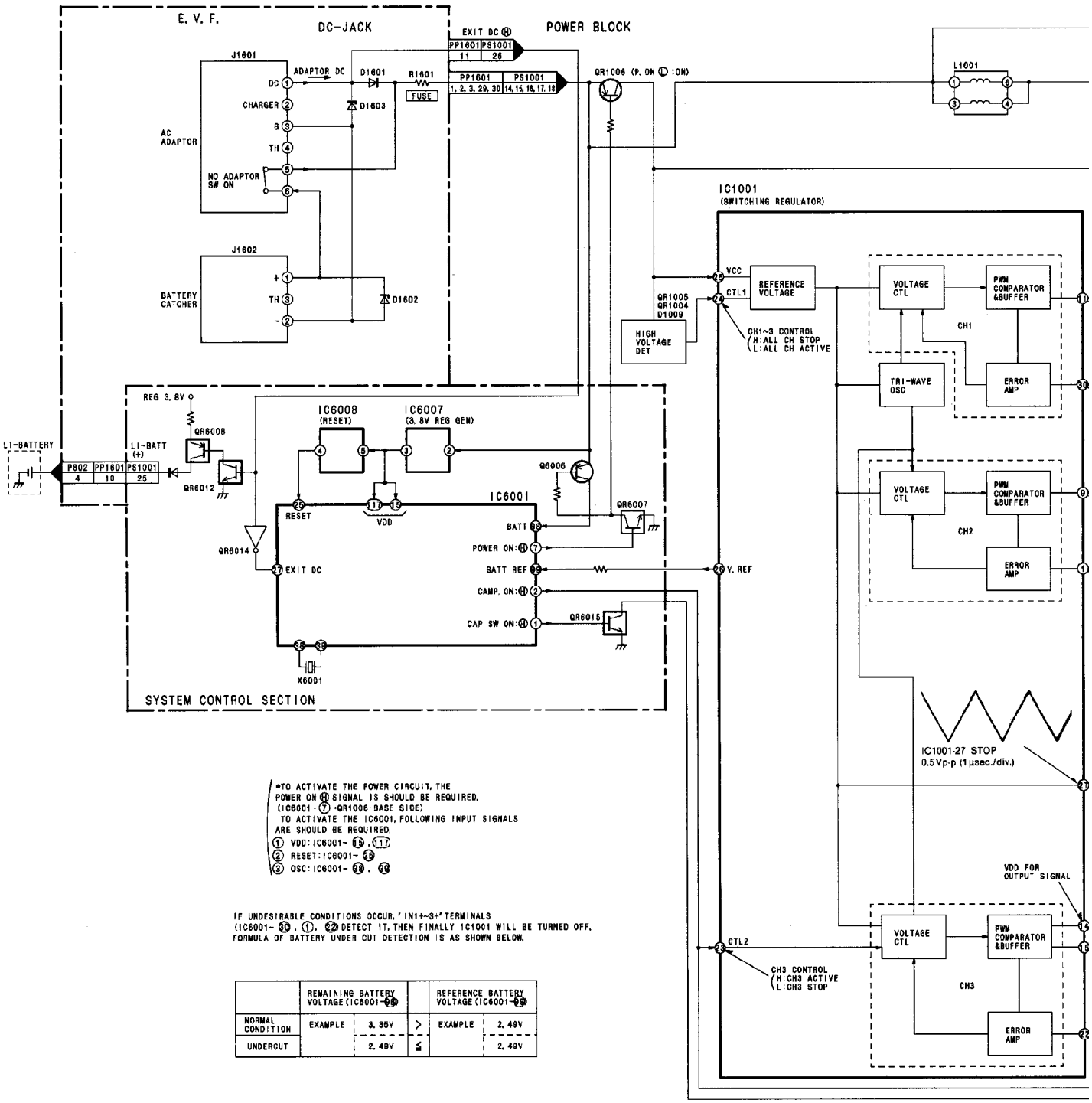

DIGITAL C SIGNAL
Y SIGNAL
R-Y SIGNAL
B-Y SIGNAL
IC303 (LS1:ELECTRIC ZOOM)
E. ZOOM PROCESSOR
IC201-30
IC202
SSG
HCLR
HD
VD
Y7
Y0
C7
C0
FROM IC305-40
NORMAL
MIX/WIPE
V. ZOOM UP
H. ZOOM UP
DIS/E. ZOOM
GAIN α
GAIN (1-α)
C. E ZOOM/D. MIX PROCESSOR (SAME AS Y)
4bit-8bit CONV.
8bit-4bit CONV.
BLK IN
SYNC
CSPC
WE
DATA MD0 ~ MD7
ADDRESS MA8~MA0, MA11, MA10
DIGITAL Y SIGNAL YM0~YM8
MEMORY Y SIGNAL YFM0~YFM8
DIGITAL C SIGNAL CM00~CM03
MEMORY C SIGNAL CFM3~CFM0
IC315
(D/A CONVERTER)
8bit 3CH D/A CONVERTER
Y
R-Y
B-Y
TO VIDEO
Y (IC315-16)
1.0Vp-p
R-Y (IC315-21)
0.7Vp-p
B-Y (IC315-23)
0.7Vp-p
STOP (20μsec./div.) COLOUR BAR
HD (IC303-100)
3.4Vp-p
SYNC (IC303-97)
3.4Vp-p
CSPC (IC303-95)
4.5Vp-p
IC308 (D/A CONVERTER)
TO SENSOR
IC204-2
IC201-3
IC204-8
IC204-18
IC204-20
OB CONT
SBU CONT
A/D CONT
AGC CONT
PEDE CONT
DATA
CLOCK
LOAD PULSE
DATA OUT
B-Y BAL
R-Y BAL
TO VIDEO
+5V
IC307 (D/A CONVERTER)
PWM OUT FROM IC302-62
TO IC706-5
TO LENS DRIVE
IC707-10
IC707-12
IC706-12
IC706-10
IC706-2
LOAD PULSE
CLOCK
DATA
PWM
Z. B (-)
Z. B (+)
HOLE BIAS
HOLE GAIN
ZOOM SPEED
REC C CONT
REC Y CONT
REC AUDIO CONT
TO VIDEO
+5V

# 3-4. LENS DRIVE BLOCK DIAGRAM




PROCESS SECTION
IC302 (AD/AF/DSP)
SENSOR CIRCUIT
AF ANALOGUE SIGNAL PROCESS
PWM GENE
IC306
ZOOM
IC303
ZOOM (FOR WIPE/MIX)
IC315
D/A
Y
R-Y
B-Y
FIELD MEMORY
IC305
(DSP/AF/DIS μ-COM)
IC309
E²PROM
ABSF
LED CNT
MRESET
MENABLE
CLK
NEAR/FAR
TELE
WIDE
ZOOM TRACKING CURVE ALGORITHM
ZOOM LEVER
ZOOM A/D
P303
5
V REF H (IC204-1 : 3.3V)
V REF L (IC204-32 : 1.3V)
NO REG
VCC
VC
IN2
IN1
T
W
Z
ZENCX1
ZENCX4
A/D CONVERTER
VREF-H (IC204-1 : 3.3V)
VREF-L (IC204-32 : 1.3V)
FNO
CAMERA OPERATION
MF/AF
FP301
3
FRONT OPERATION (FOCUS RING)
VR1
VR2
FP4003
8
FP4003
7
FOCUS RING
IC707
IC308
(D/A CONVERTER)
LOAD
CLK
D. OUT
D. IN
IC307
(D/A CONVERTER)
ZOOM SPEED
V REF +T
V REF -T
PWM
HOLE BIAS
HOLE GAIN

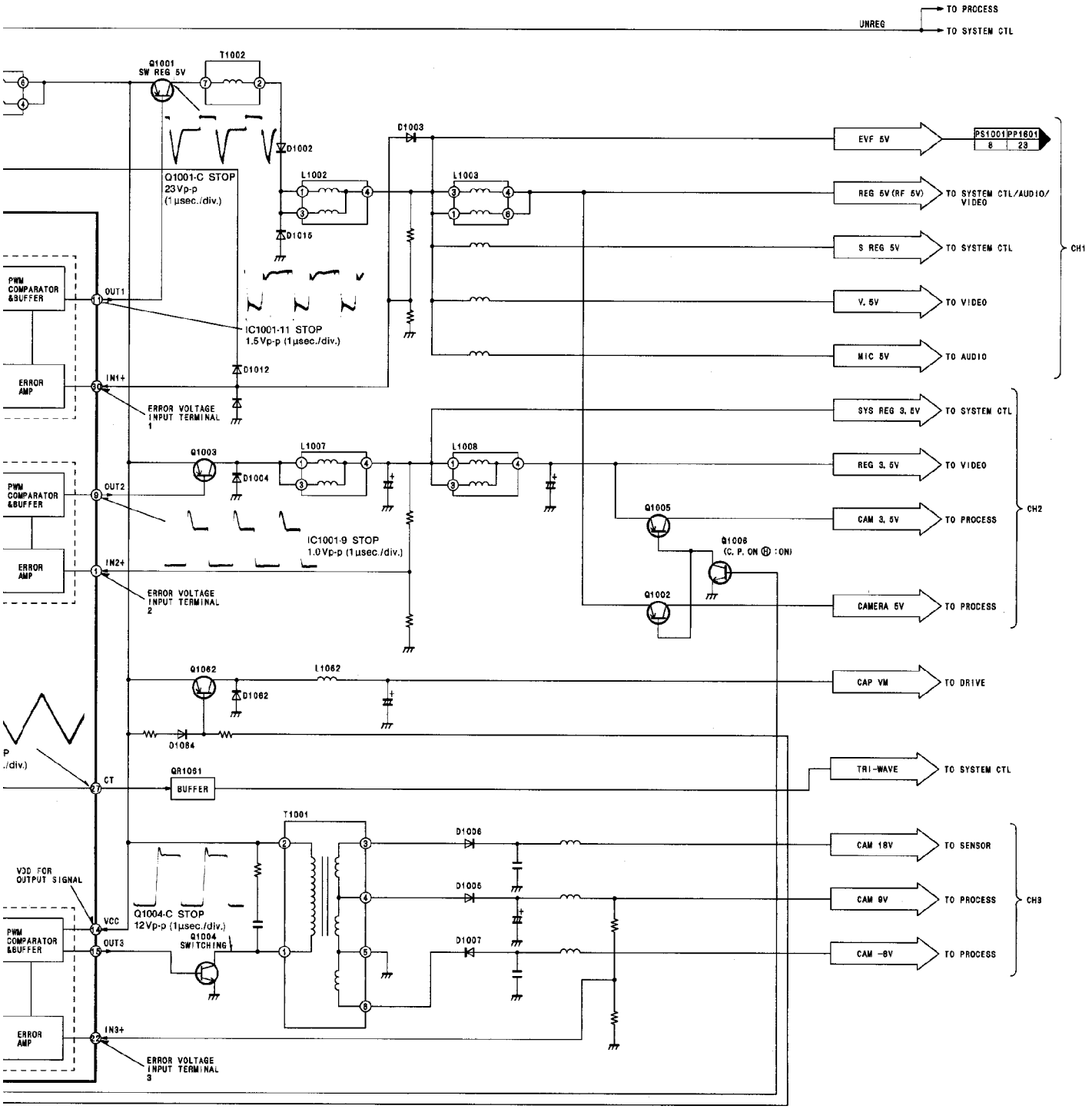
# 3-5. POWER BLOCK DIAGRAM



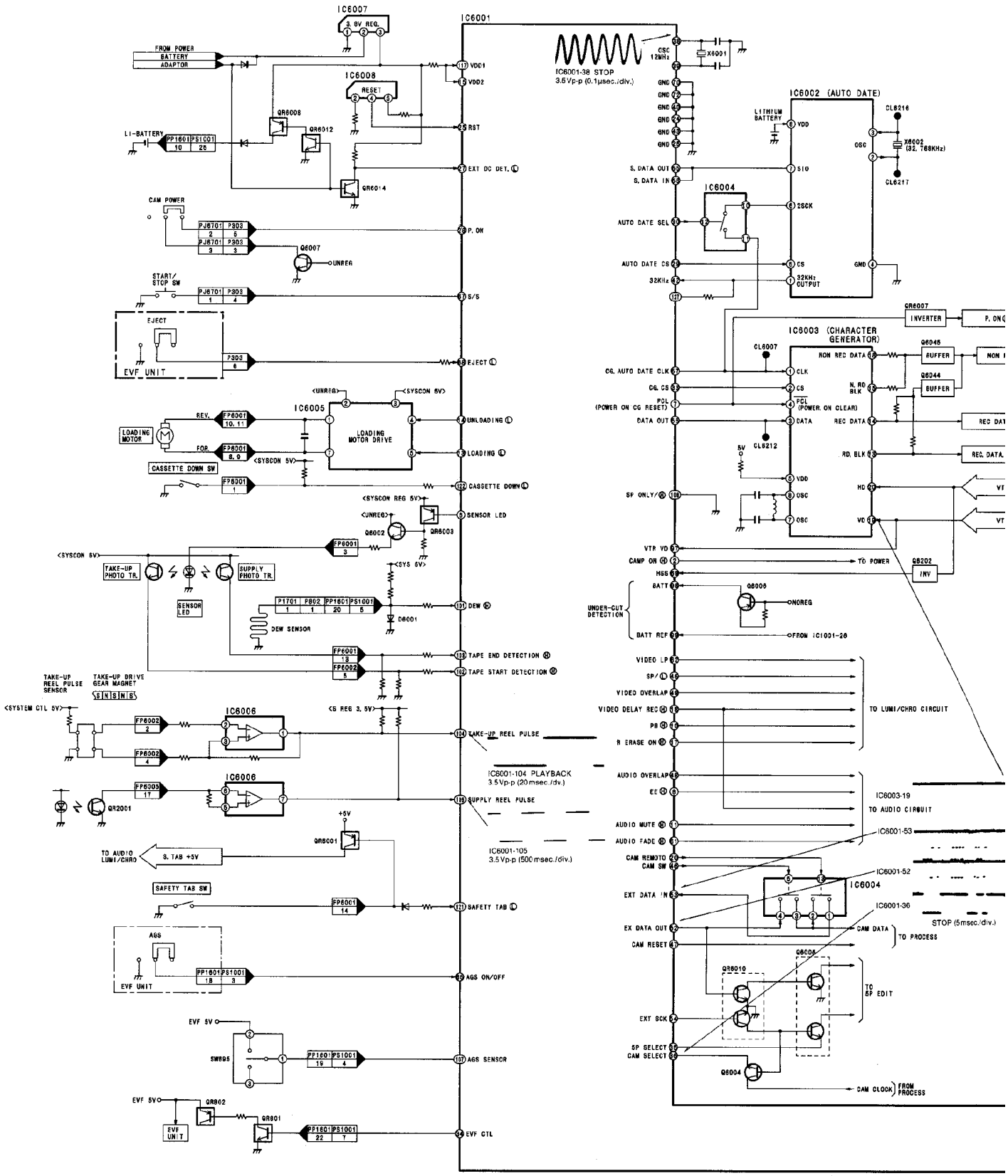

*TO ACTIVATE THE POWER CIRCUIT, THE POWER ON ⑭ SIGNAL IS SHOULD BE REQUIRED. (IC6001-⑦-QR1006-BASE SIDE)
TO ACTIVATE THE IC6001, FOLLOWING INPUT SIGNALS ARE SHOULD BE REQUIRED.
① VDD: IC6001- ⑮, ⑰
② RESET: IC6001- ㉖
③ OSC: IC6001- ㉘, ㉙

IF UNDESIRABLE CONDITIONS OCCUR, 'IN1+~3+' TERMINALS (IC6001- ㉚, ①, ㉒ DETECT IT, THEN FINALLY IC1001 WILL BE TURNED OFF.
FORMULA OF BATTERY UNDER CUT DETECTION IS AS SHOWN BELOW.

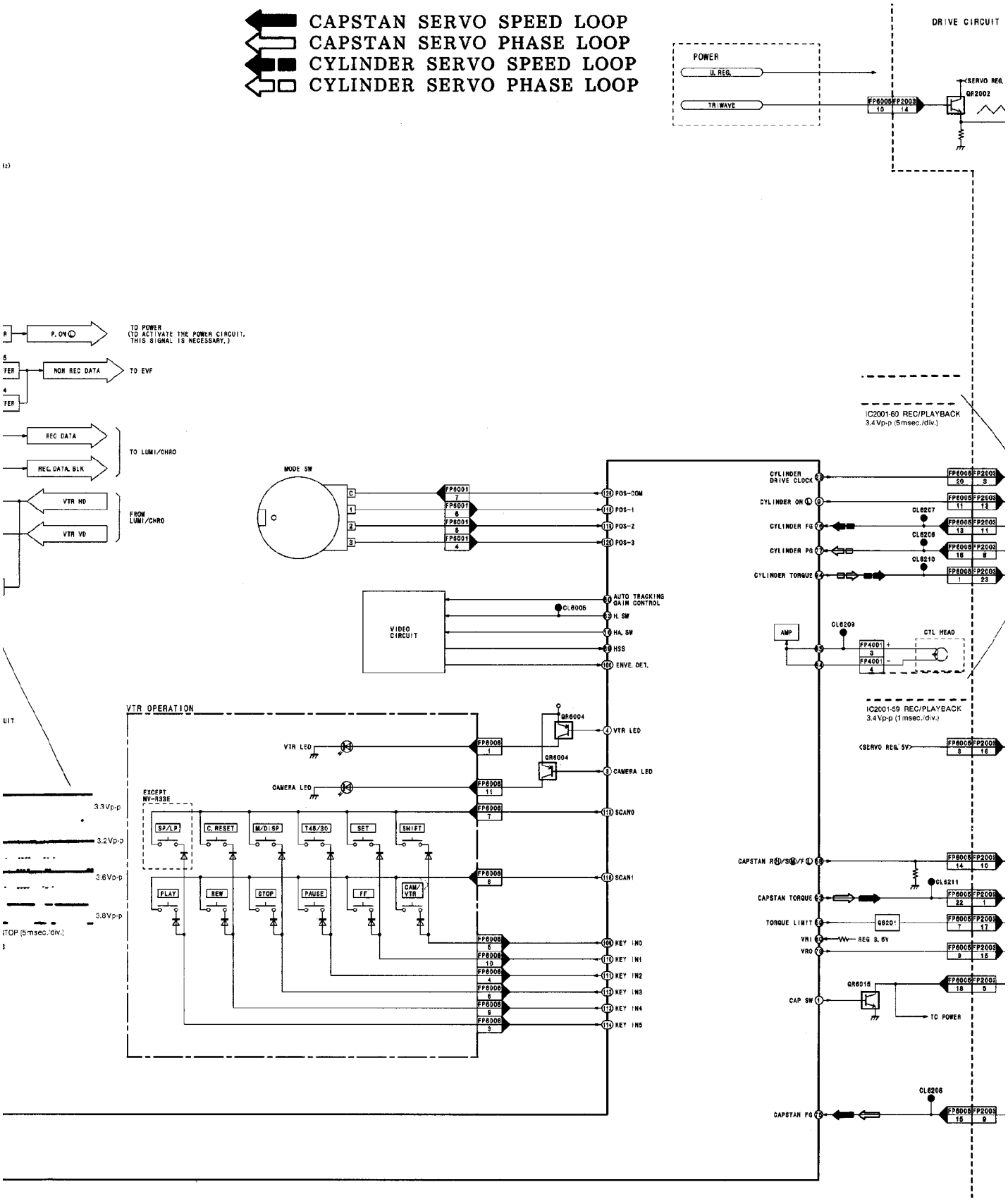
| | REMAINING BATTERY VOLTAGE (IC6001-㉚) | | | REFERENCE BATTERY VOLTAGE (IC6001-㉒) | |
|---|---|---|---|---|---|
| NORMAL CONDITION | EXAMPLE | 3.35V | > | EXAMPLE | 2.49V |
| UNDERCUT | | 2.49V | ≦ | | 2.49V |

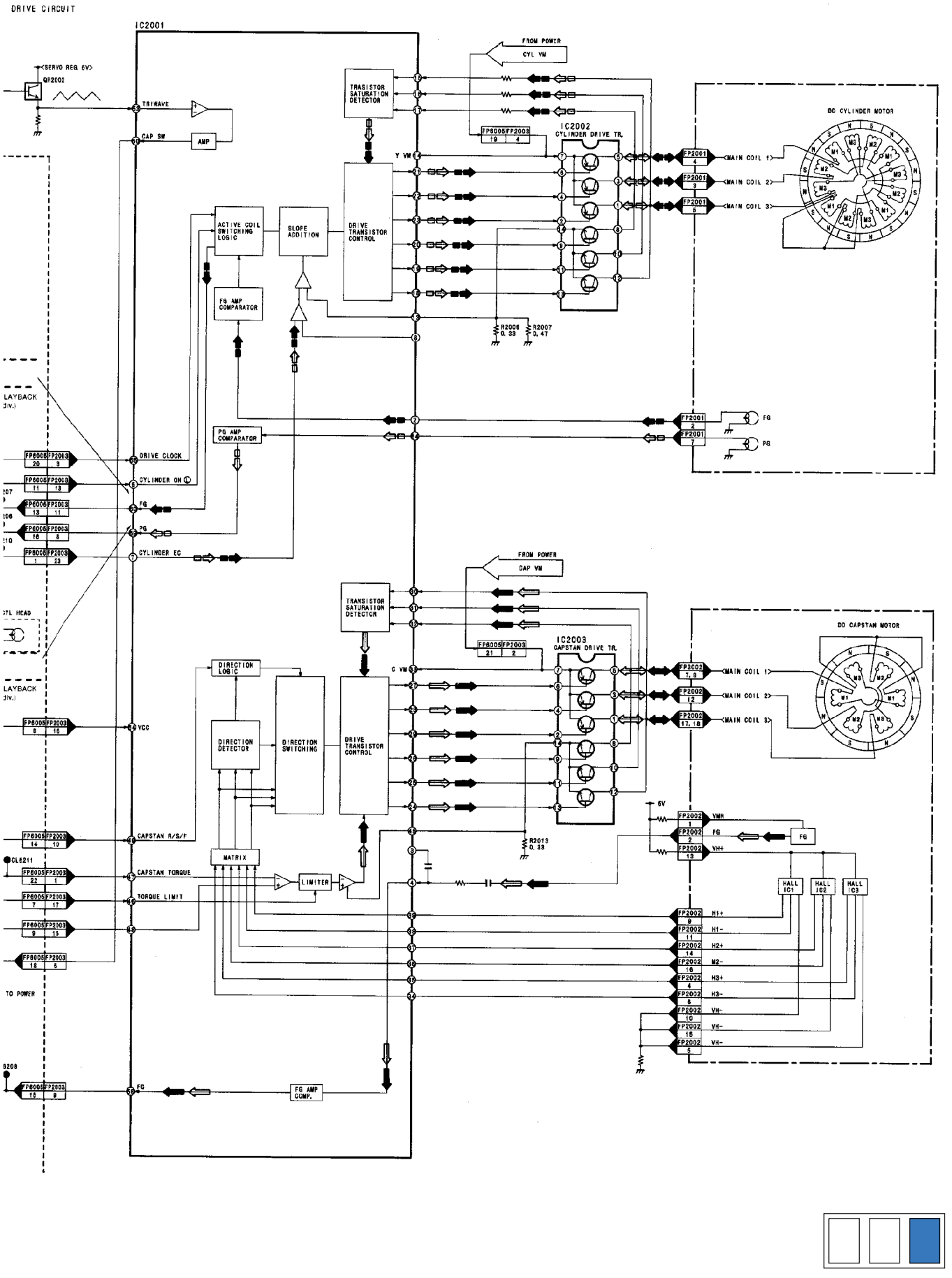

UNREG
TO PROCESS
TO SYSTEM CTL
Q1001
SW REG 5V
T1002
D1002
D1003
Q1001-C STOP
23Vp-p
(1 µsec./div.)
L1002
L1003
D1015
EVF 5V
PS1001 PP1601
8 23
REG 5V (RF 5V)
TO SYSTEM CTL/AUDIO/VIDEO
S REG 5V
TO SYSTEM CTL
V. 5V
TO VIDEO
MIC 5V
TO AUDIO
CH1
PWM COMPARATOR &BUFFER
OUT1
IC1001-11 STOP
1.5Vp-p (1µsec./div.)
ERROR AMP
IN1+
D1012
ERROR VOLTAGE INPUT TERMINAL 1
SYS REG 3.5V
TO SYSTEM CTL
Q1003
L1007
L1008
REG 3.5V
TO VIDEO
PWM COMPARATOR &BUFFER
OUT2
D1004
Q1005
CAM 3.5V
TO PROCESS
CH2
IC1001-9 STOP
1.0Vp-p (1µsec./div.)
Q1006
(C. P. ON Ⓗ : ON)
ERROR AMP
IN2+
Q1002
CAMERA 5V
TO PROCESS
ERROR VOLTAGE INPUT TERMINAL 2
Q1062
L1062
CAP VM
TO DRIVE
D1062
D1084
CT
QR1061
BUFFER
TRI-WAVE
TO SYSTEM CTL
T1001
D1006
CAM 18V
TO SENSOR
VDD FOR OUTPUT SIGNAL
Q1004-C STOP
12Vp-p (1µsec./div.)
Q1004
SWITCHING
D1005
CAM 9V
TO PROCESS
CH3
PWM COMPARATOR &BUFFER
VCC
OUT3
D1007
CAM -8V
TO PROCESS
ERROR AMP
IN3+
ERROR VOLTAGE INPUT TERMINAL 3

# 3-6. SYSTEM CONTROL & SERVO BLOCK DIAGRAM

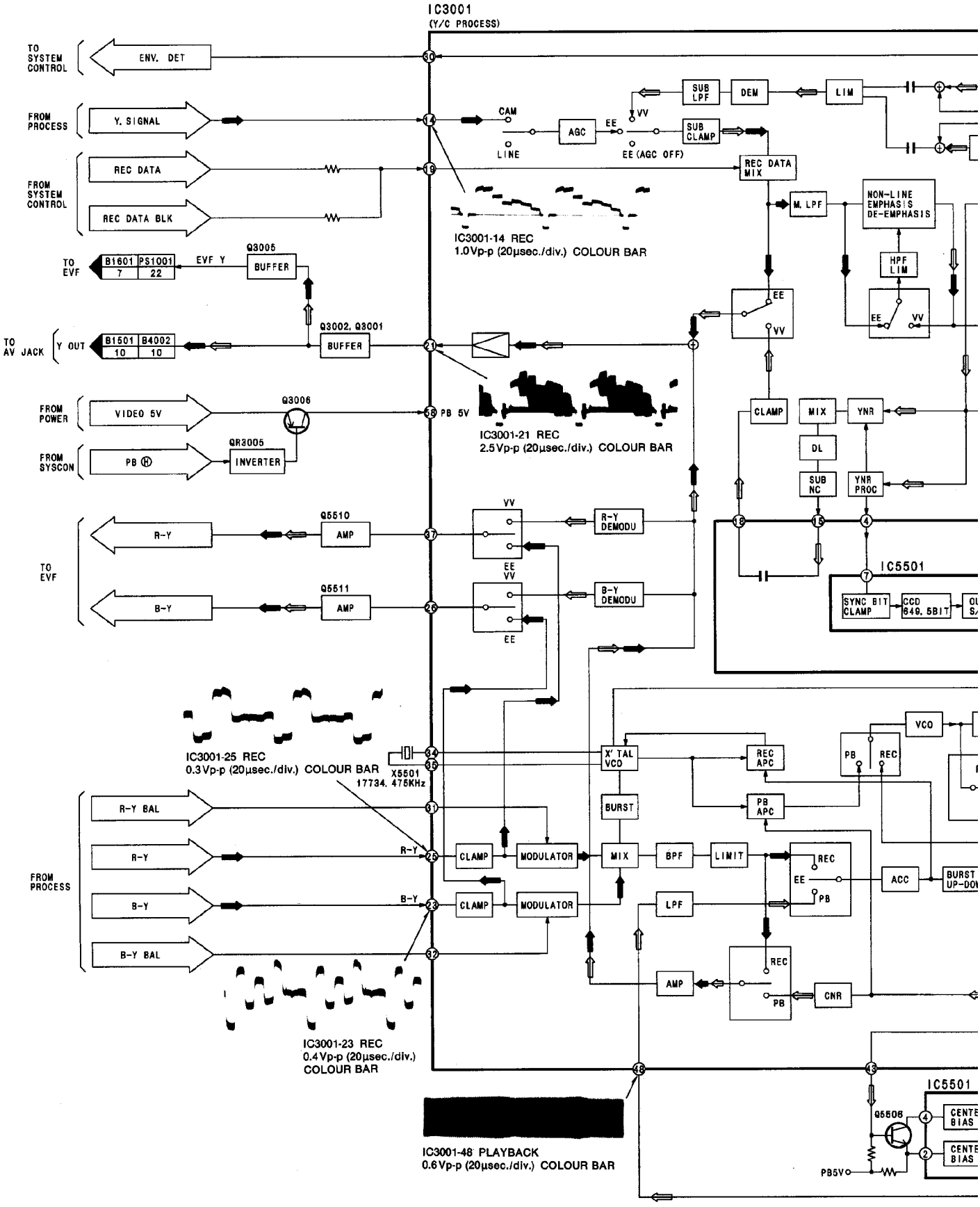


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP

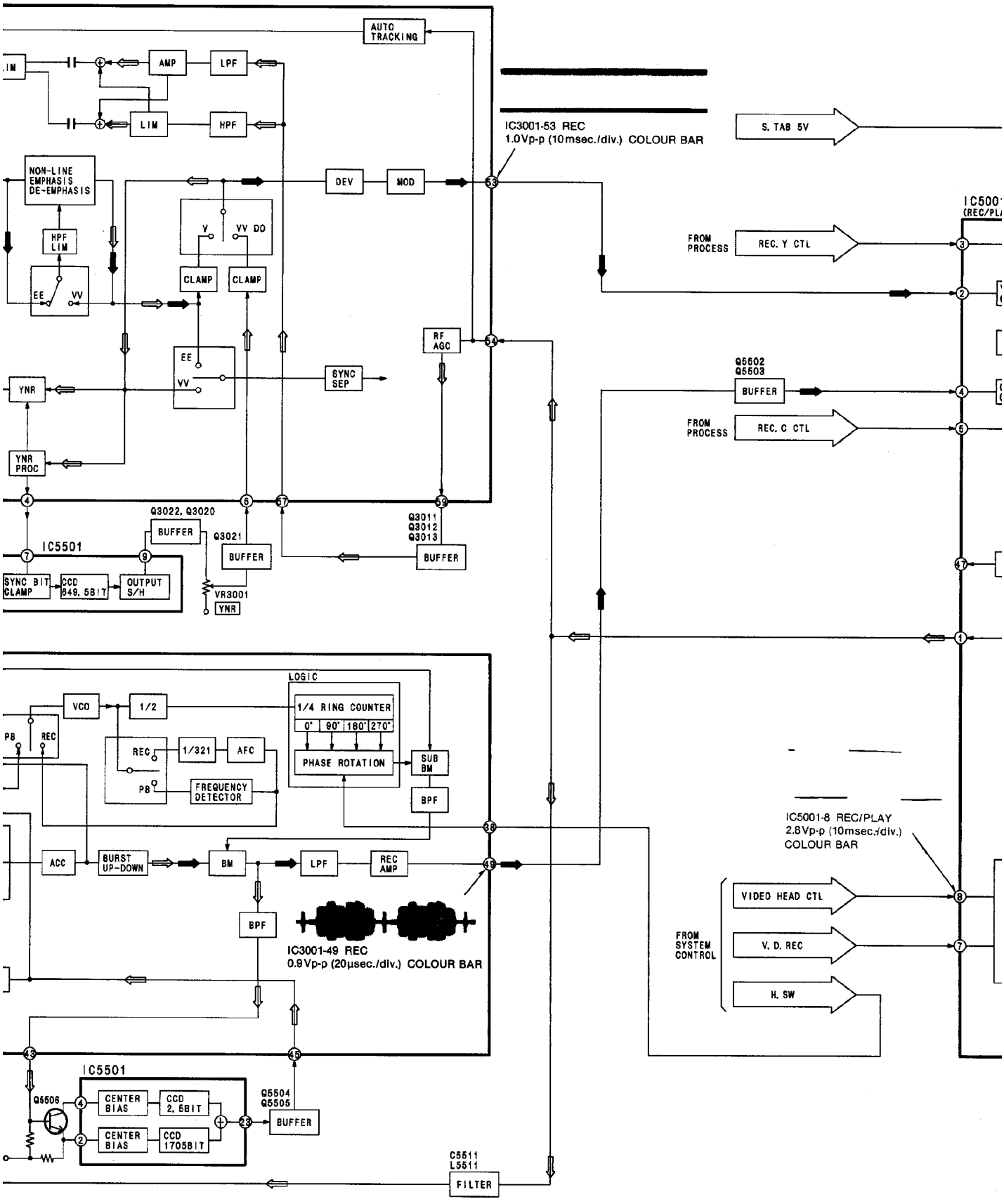


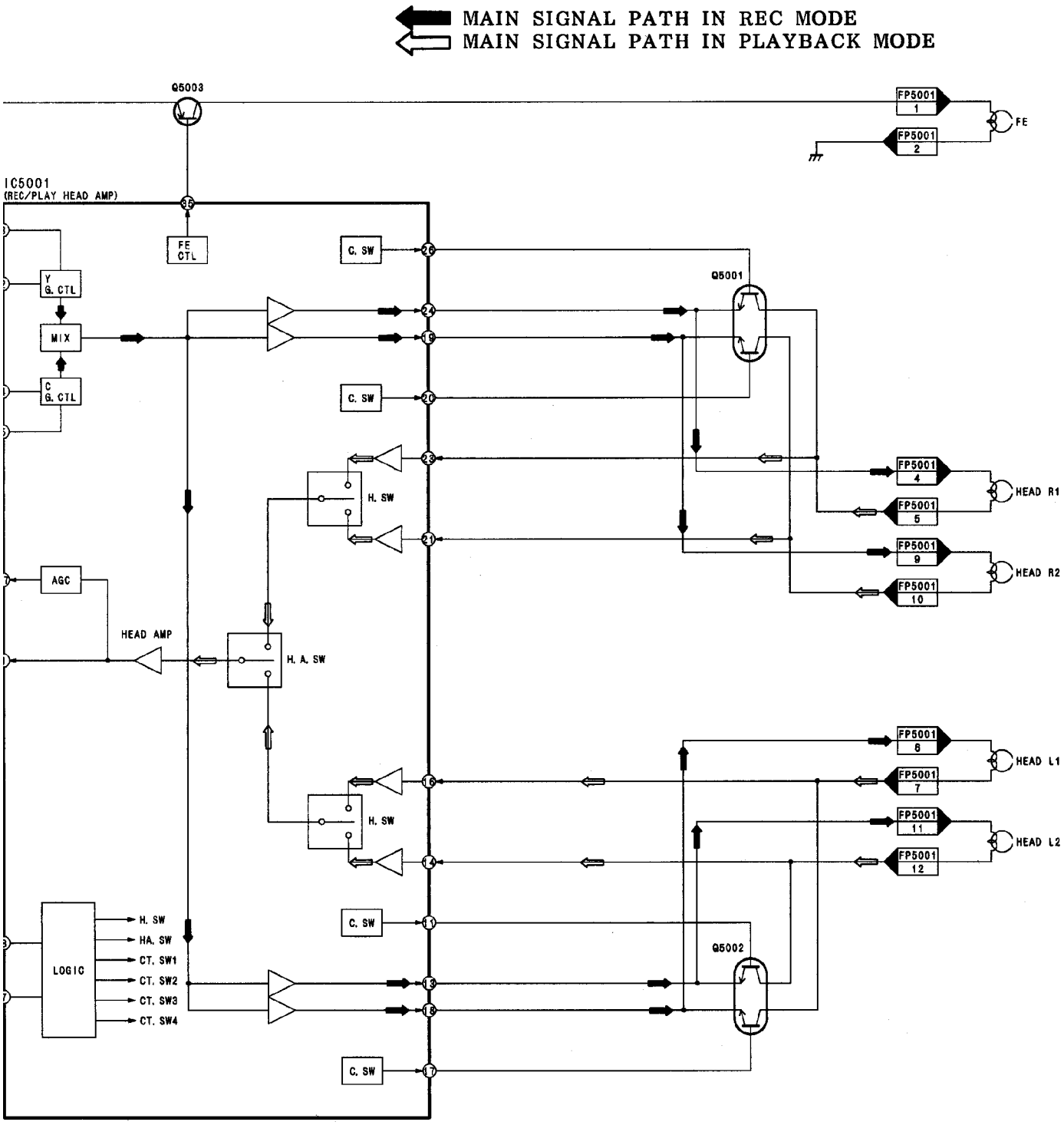

DRIVE CIRCUIT
IC2001
<SERVO REG 6V>
QR2002
TRIWAVE
CAP SW
AMP
TRASISTOR SATURATION DETECTOR
FROM POWER
CYL VM
IC2002
CYLINDER DRIVE TR.
DD CYLINDER MOTOR
<MAIN COIL 1>
<MAIN COIL 2>
<MAIN COIL 3>
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
DRIVE TRANSISTOR CONTROL
FG AMP COMPARATOR
R2006 0.33
R2007 0.47
FG
PG
DRIVE CLOCK
CYLINDER ON
CYLINDER EC
TRANSISTOR SATURATION DETECTOR
FROM POWER
CAP VM
IC2003
CAPSTAN DRIVE TR.
DD CAPSTAN MOTOR
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
DRIVE TRANSISTOR CONTROL
R2013 0.33
6V
VMR
VH+
HALL IC1
HALL IC2
HALL IC3
H1+
H1-
H2+
H2-
H3+
H3-
VH-
VH-
VH-
VCC
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
MATRIX
LIMITER
FG AMP COMP.
TO POWER

# 3-7. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM

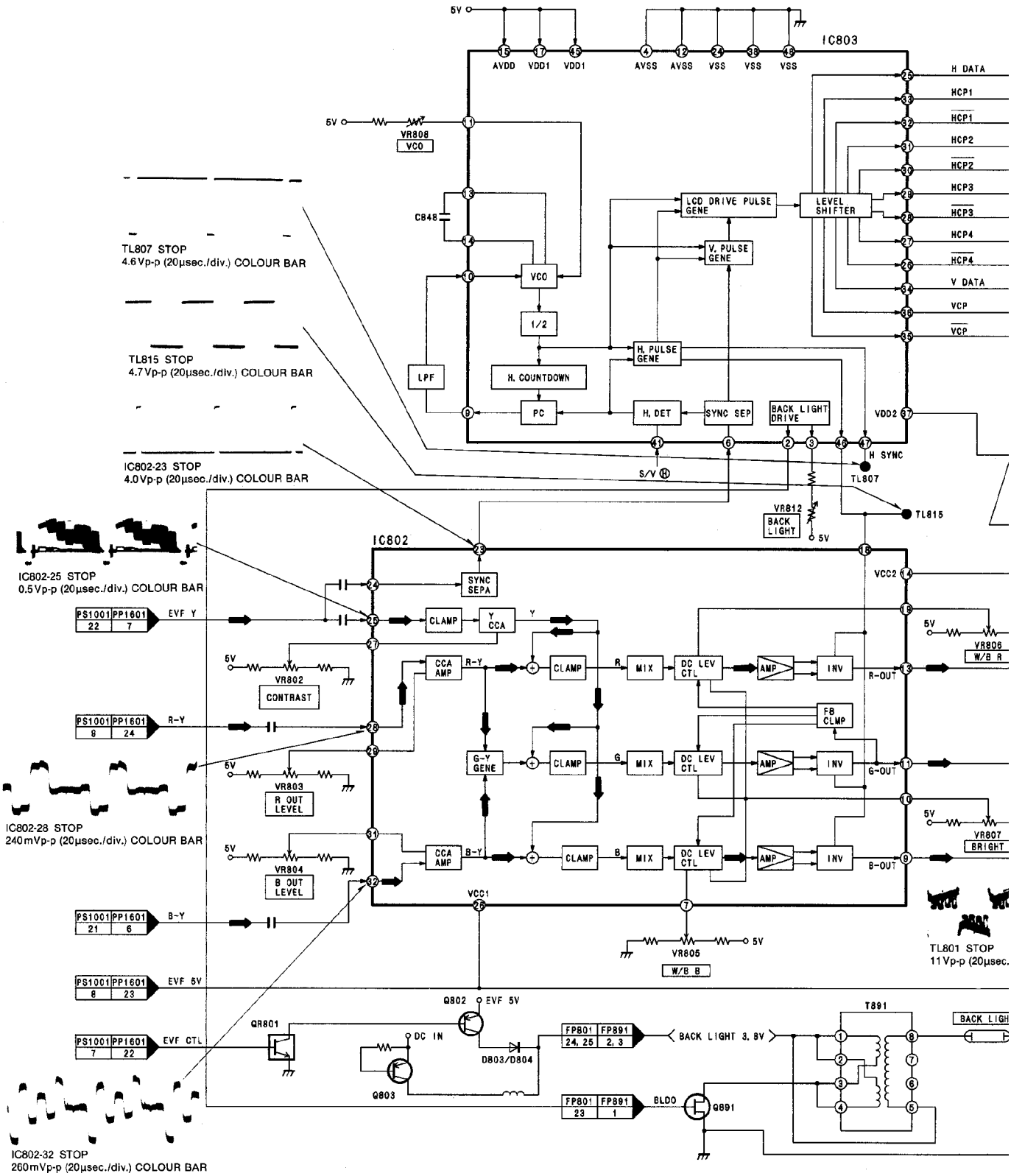


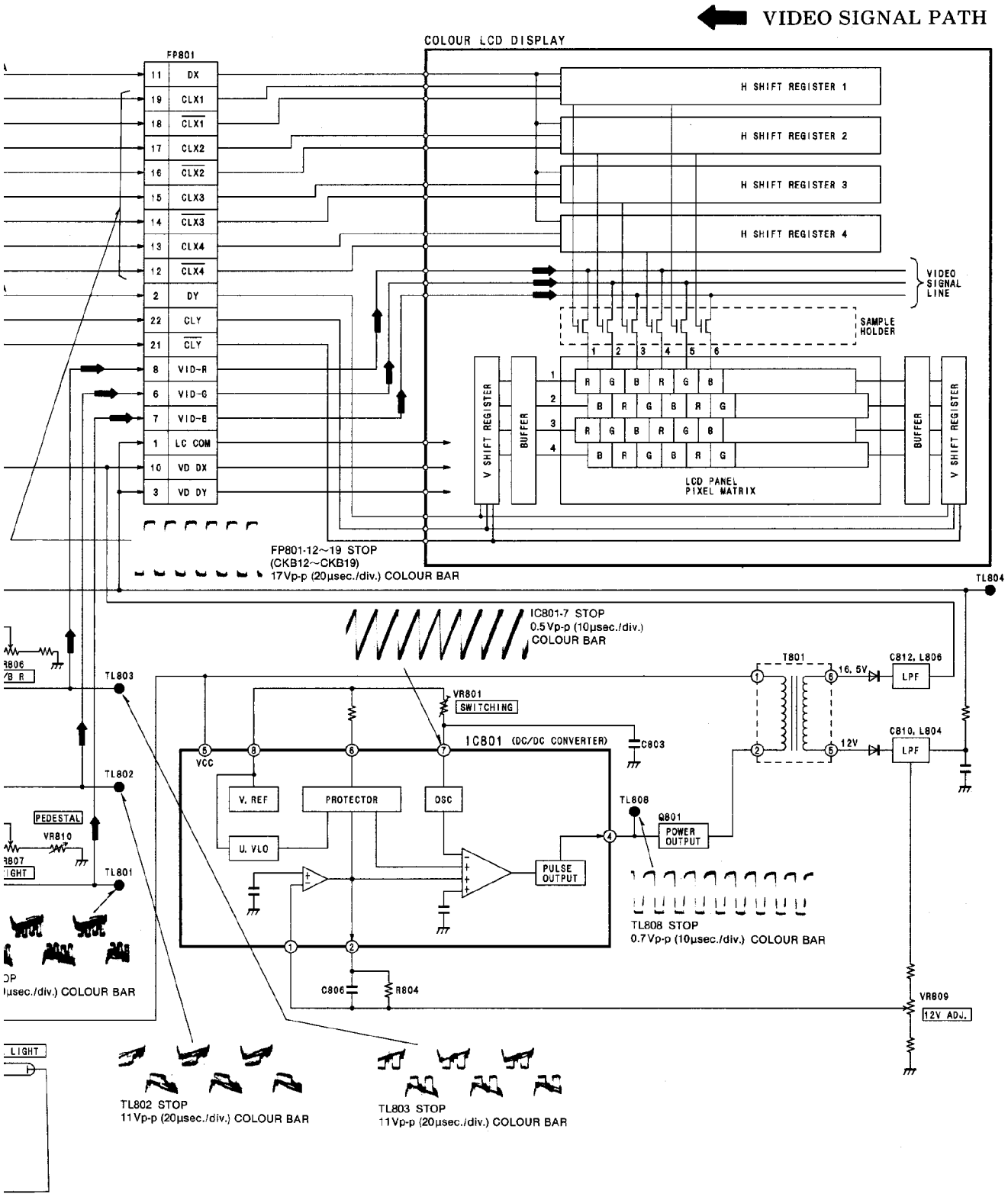
# M


AUTO TRACKING
AMP
LPF
LIM
HPF
NON-LINE EMPHASIS DE-EMPHASIS
DEV
MOD
HPF LIM
EE
VV
V
VV DO
CLAMP
CLAMP
RF AGC
SYNC SEP
YNR
YNR PROC
IC3001-53 REC
1.0Vp-p (10msec./div.) COLOUR BAR
S. TAB 5V
FROM PROCESS
REC. Y CTL
Q5502
Q5503
BUFFER
FROM PROCESS
REC. C CTL
Q3022, Q3020
BUFFER
Q3021
BUFFER
Q3011
Q3012
Q3013
BUFFER
IC5501
SYNC BIT CLAMP
CCD 649, 5BIT
OUTPUT S/H
VR3001
YNR
LOGIC
VCO
1/2
1/4 RING COUNTER
0° 90° 180° 270°
PB
REC
REC
1/321
AFC
PHASE ROTATION
SUB BM
PB
FREQUENCY DETECTOR
BPF
ACC
BURST UP-DOWN
BM
LPF
REC AMP
IC5001-8 REC/PLAY
2.8Vp-p (10msec./div.)
COLOUR BAR
VIDEO HEAD CTL
FROM SYSTEM CONTROL
V. D. REC
H. SW
BPF
IC3001-49 REC
0.9Vp-p (20µsec./div.) COLOUR BAR
IC5501
Q5506
CENTER BIAS
CCD 2. 5BIT
CENTER BIAS
CCD 1705BIT
Q5504
Q5505
BUFFER
C5511
L5511
FILTER


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
Q5003
FP5001 1
FP5001 2
FE
IC5001
(REC/PLAY HEAD AMP)
35
FE CTL
C. SW
26
Y G. CTL
MIX
C G. CTL
24
19
Q5001
C. SW
20
23
H. SW
21
FP5001 4
FP5001 5
FP5001 9
FP5001 10
HEAD R1
HEAD R2
AGC
HEAD AMP
H. A. SW
FP5001 6
FP5001 7
FP5001 11
FP5001 12
HEAD L1
HEAD L2
16
H. SW
14
C. SW
11
LOGIC
H. SW
HA. SW
CT. SW1
CT. SW2
CT. SW3
CT. SW4
Q5002
13
18
C. SW
17

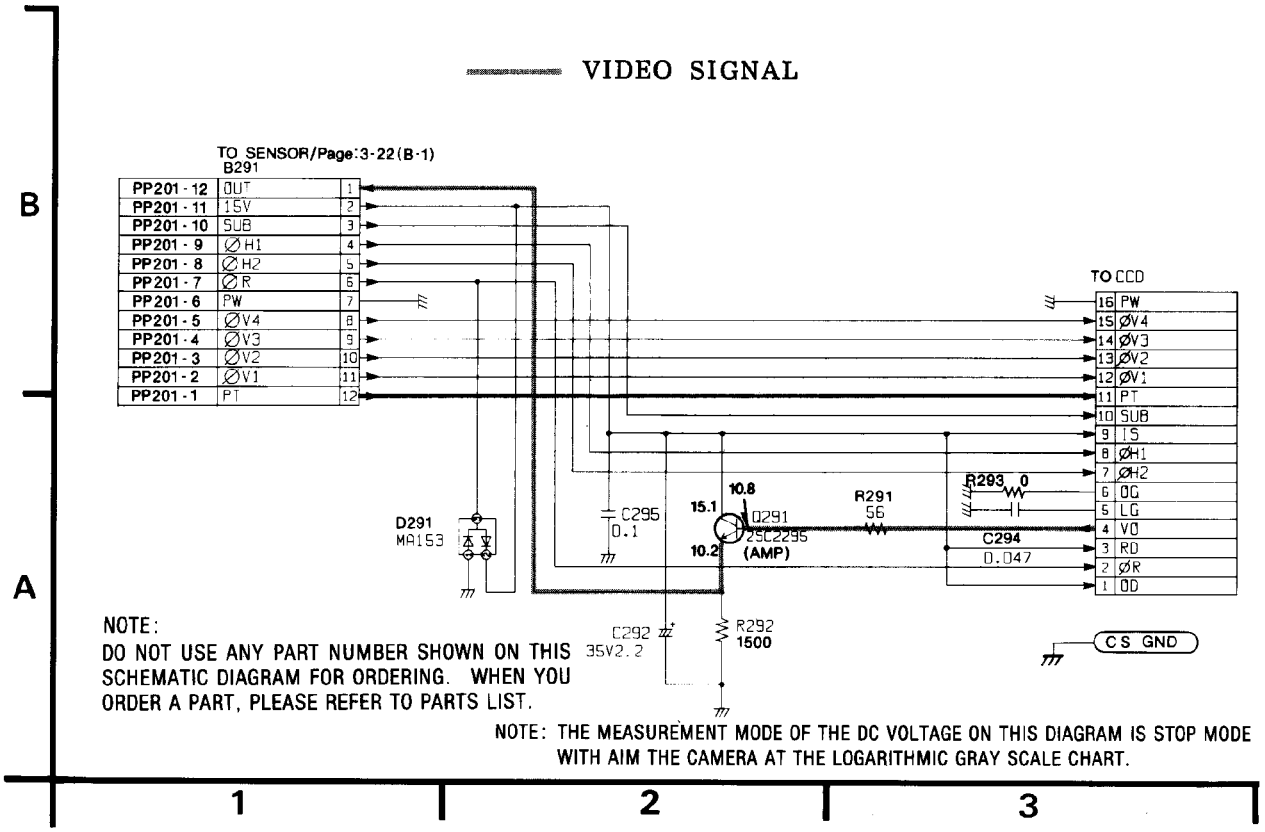
# 3-8. EVF BLOCK DIAGRAM




VIDEO SIGNAL PATH
COLOUR LCD DISPLAY
FP801
11 DX
19 CLX1
18 CLX1
17 CLX2
16 CLX2
15 CLX3
14 CLX3
13 CLX4
12 CLX4
2 DY
22 CLY
21 CLY
8 VID-R
6 VID-G
7 VID-B
1 LC COM
10 VD DX
3 VD DY
H SHIFT REGISTER 1
H SHIFT REGISTER 2
H SHIFT REGISTER 3
H SHIFT REGISTER 4
VIDEO SIGNAL LINE
SAMPLE HOLDER
V SHIFT REGISTER
BUFFER
LCD PANEL PIXEL MATRIX
FP801-12~19 STOP
(CKB12~CKB19)
17Vp-p (20µsec./div.) COLOUR BAR
TL804
IC801-7 STOP
0.5Vp-p (10µsec./div.)
COLOUR BAR
TL803
VR801
SWITCHING
IC801 (DC/DC CONVERTER)
C803
VCC
V. REF
PROTECTOR
OSC
U. VLO
PULSE OUTPUT
TL808
Q801
POWER OUTPUT
T801
16.5V
12V
C812, L806
C810, L804
LPF
TL802
PEDESTAL
VR810
TL801
TL808 STOP
0.7Vp-p (10µsec./div.) COLOUR BAR
C806
R804
VR809
12V ADJ.
TL802 STOP
11Vp-p (20µsec./div.) COLOUR BAR
TL803 STOP
11Vp-p (20µsec./div.) COLOUR BAR

# 3-9. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM

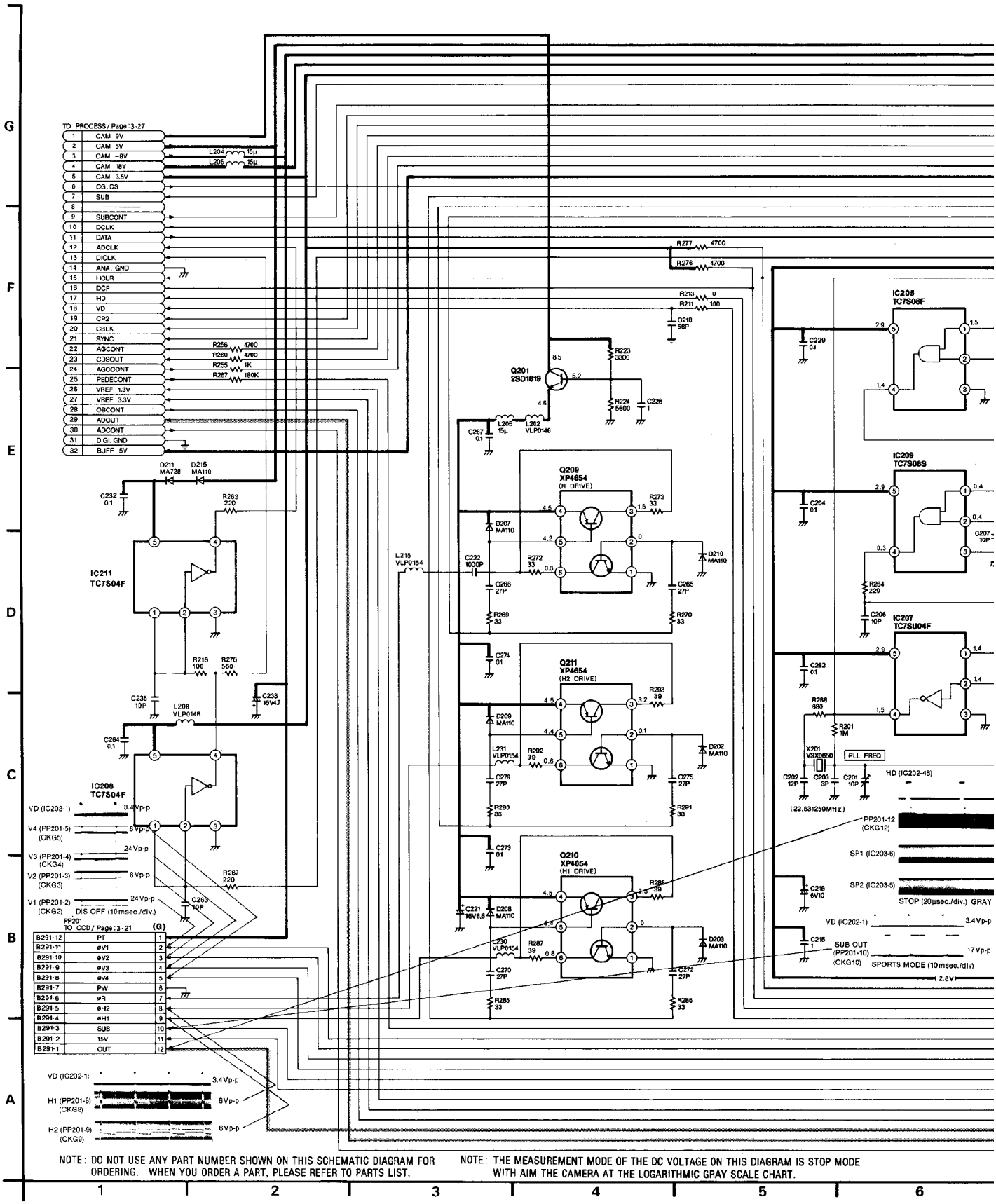
EVF & CCD FLEX.
CARD Section



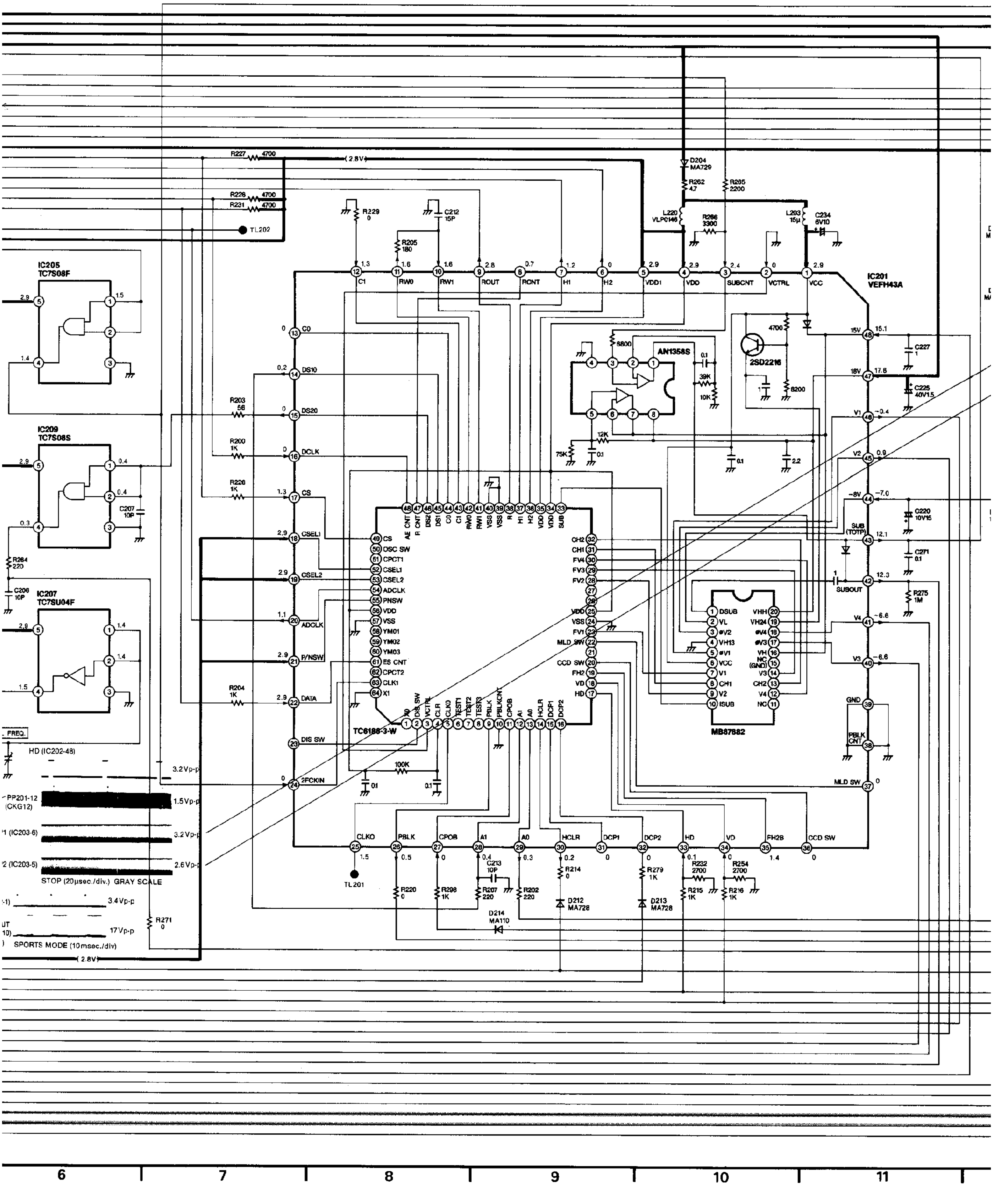

NOTE:
DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

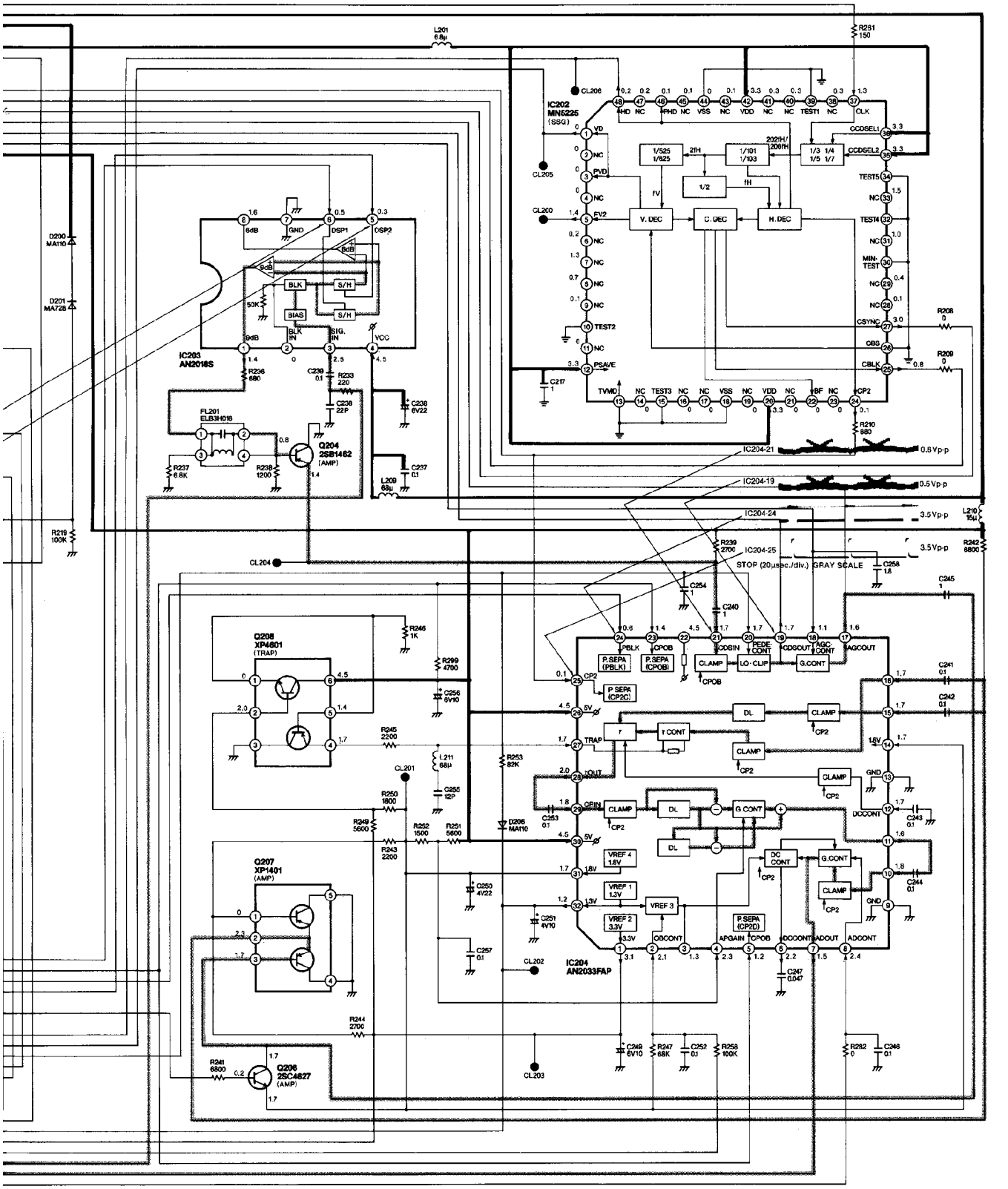
# 3-11. SENSOR SCHEMATIC DIAGRAM



## VIDEO SIGNAL

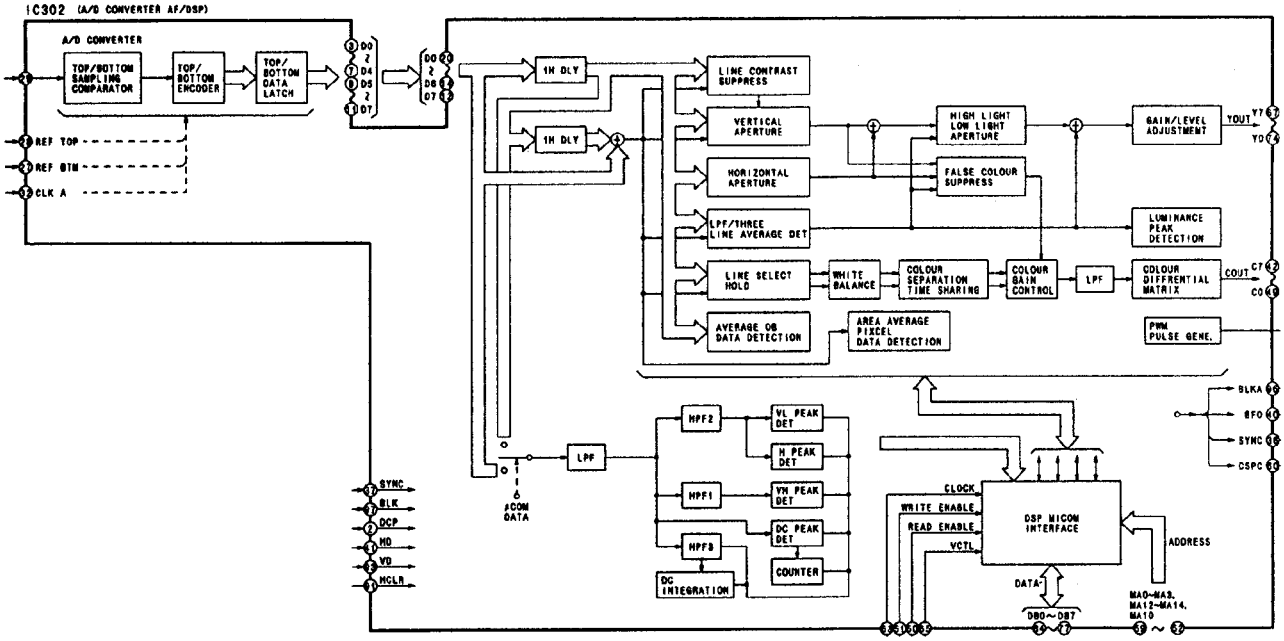



6 7 8 9 10 11

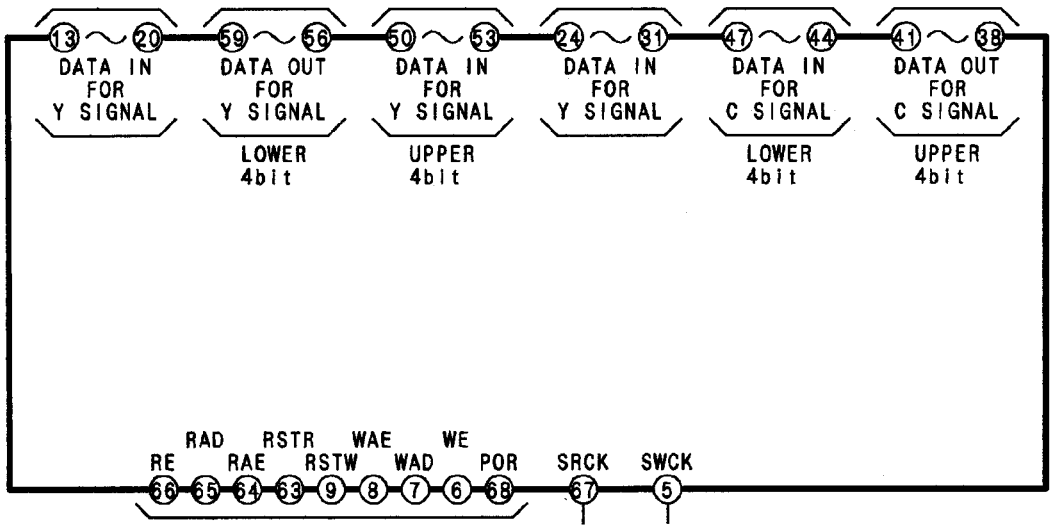

IC202
MN5225
(SSG)
IC203
AN2018S
IC204
AN2033FAP
Q204
2SB1462
(AMP)
Q206
2SC4627
(AMP)
Q207
XP1401
(AMP)
Q208
XP4601
(TRAP)
D200
MA110
D201
MA728
D206
MA110
FL201
ELB3H018
L201
6.8µ
L209
68µ
L210
15µ
L211
68µ
R251
150
R208
0
R209
0
R210
680
R219
100K
R236
680
R237
6.8K
R238
1200
R239
2700
R241
6800
R242
6800
R243
2200
R244
2700
R245
2200
R246
1K
R247
68K
R249
5600
R250
1800
R252
1500
R253
82K
R258
100K
R282
0
R299
4700
C203
C204
C205
C206
C200
C201
C202
C217
1
C233
220
C236
22P
C237
0.1
C238
6V22
C239
0.1
C240
1
C241
0.1
C242
0.1
C243
0.1
C244
0.1
C245
1
C246
6V10
C247
0.047
C250
4V22
C251
4V10
C252
0.1
C253
0.1
C254
1
C255
12P
C256
6V10
C257
0.1
C258
1.8
C248
0.1
BLK
S/H
BIAS
BLK IN
SIG. IN
VCC
GND
DSP1
DSP2
6dB
9dB
3dB
50K
TRAP
YOUT
CROIN
CP2
5V
1.8V
1.3V
3.3V
VREF 1
1.3V
VREF 2
3.3V
VREF 3
VREF 4
1.8V
P.SEPA
(PBLK)
P.SEPA
(CPOB)
P.SEPA
(CP2C)
P.SEPA
(CP2D)
CLAMP
LO-CLIP
G.CONT
PEDE. CONT
AGC CONT
DC CONT
Y CONT
DL
PBLK
CPOB
CDSIN
CDSOUT
AGCOUT
DCCONT
ADOUT
ADCONT
OBCONT
APGAIN
V. DEC
C. DEC
H. DEC
1/525
1/625
1/101
1/103
1/3 1/4
1/5 1/7
1/2
2fH
fH
fV
202fH/
206fH
CCDSEL1
CCDSEL2
TEST1
TEST2
TEST3
TEST4
TEST5
MIN-TEST
TVMD
PSAVE
CSYNC
CBG
CBLK
IC204-21
IC204-19
IC204-24
IC204-25
0.8Vp-p
0.5Vp-p
3.5Vp-p
3.5Vp-p
STOP (20µsec./div.) GRAY SCALE

# IC BLOCK

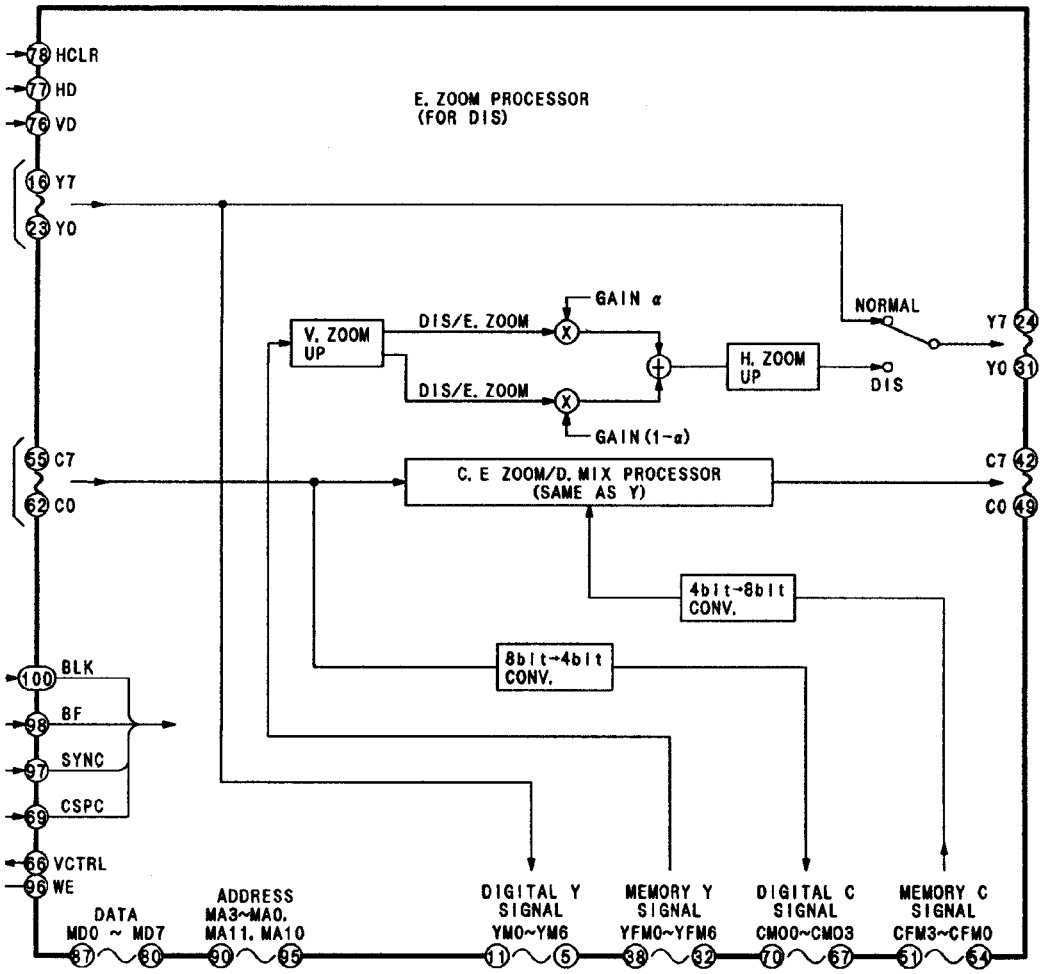
## IC302 (MN67323)
## (LOCATION: G-6)



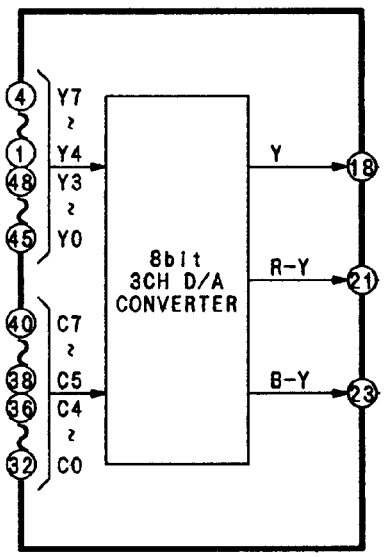

## IC310 (ZA4035)
## (LOCATION: A-8)



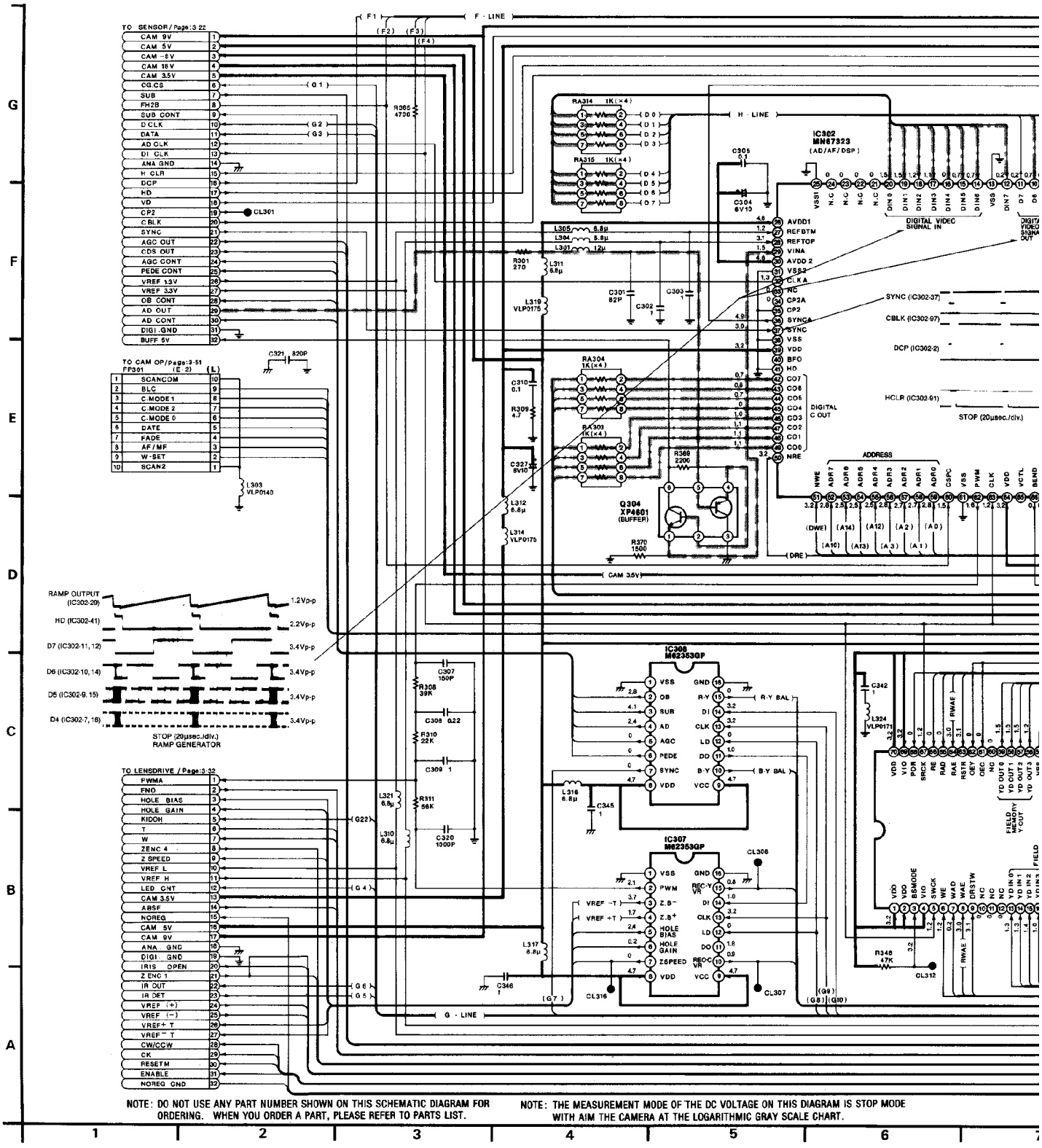
**IC303 (MN67332 or L7A1193)**
**(LOCATION: E-18)**




**IC315 (MN65703T)**
**(LOCATION: E-24)**

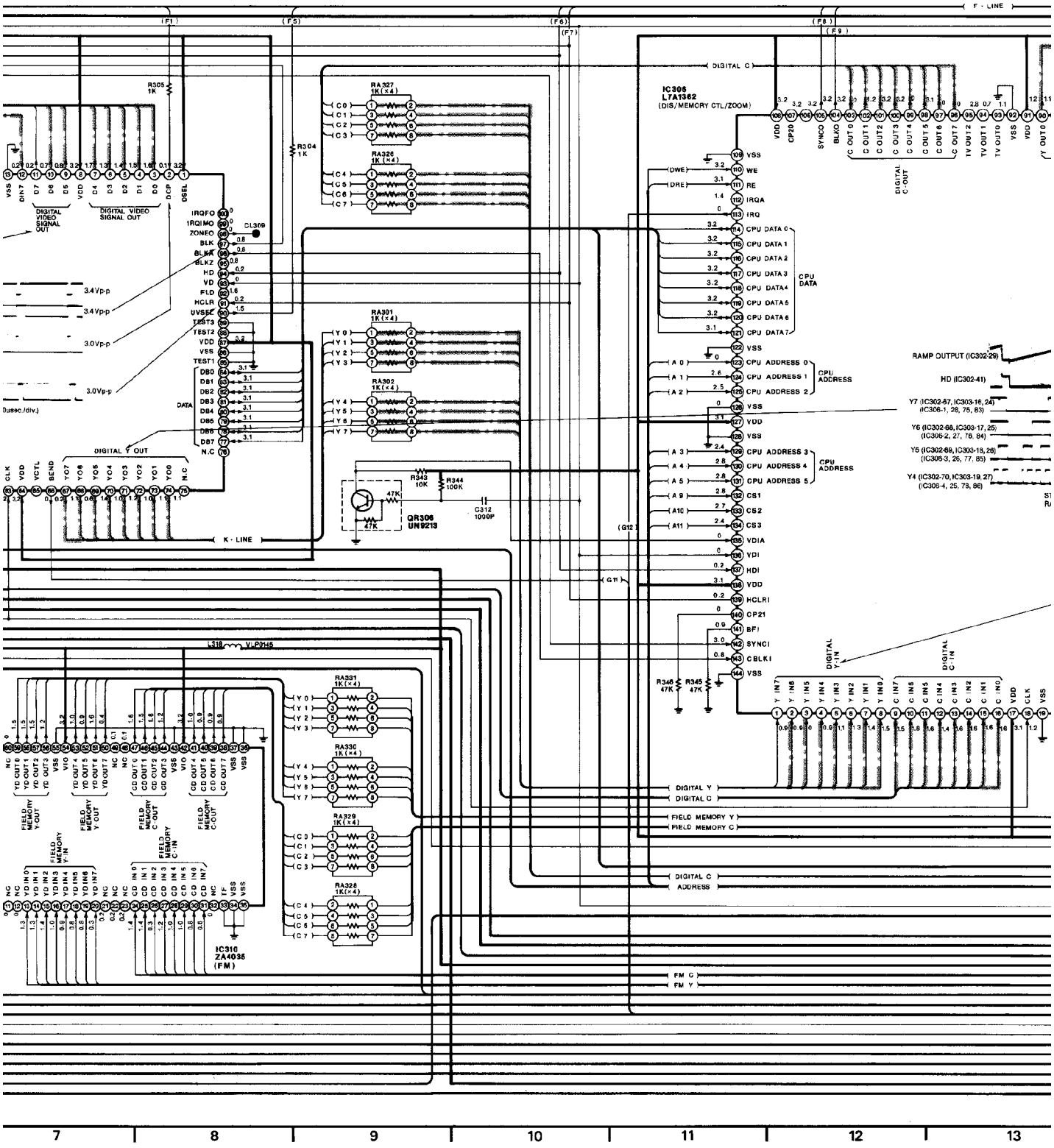


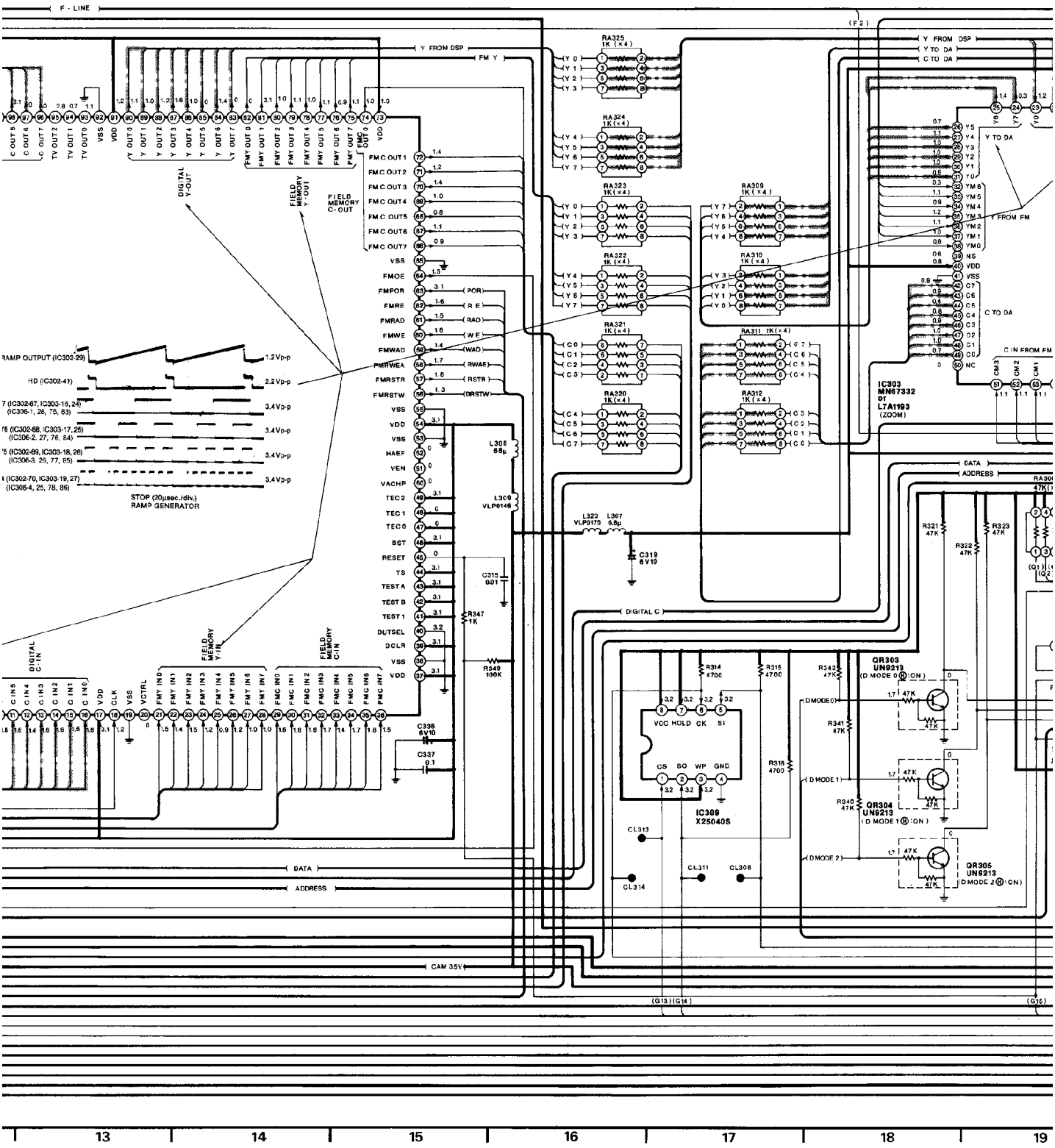
# 3-12. PROCESS SCHEMATIC DIAGRAM



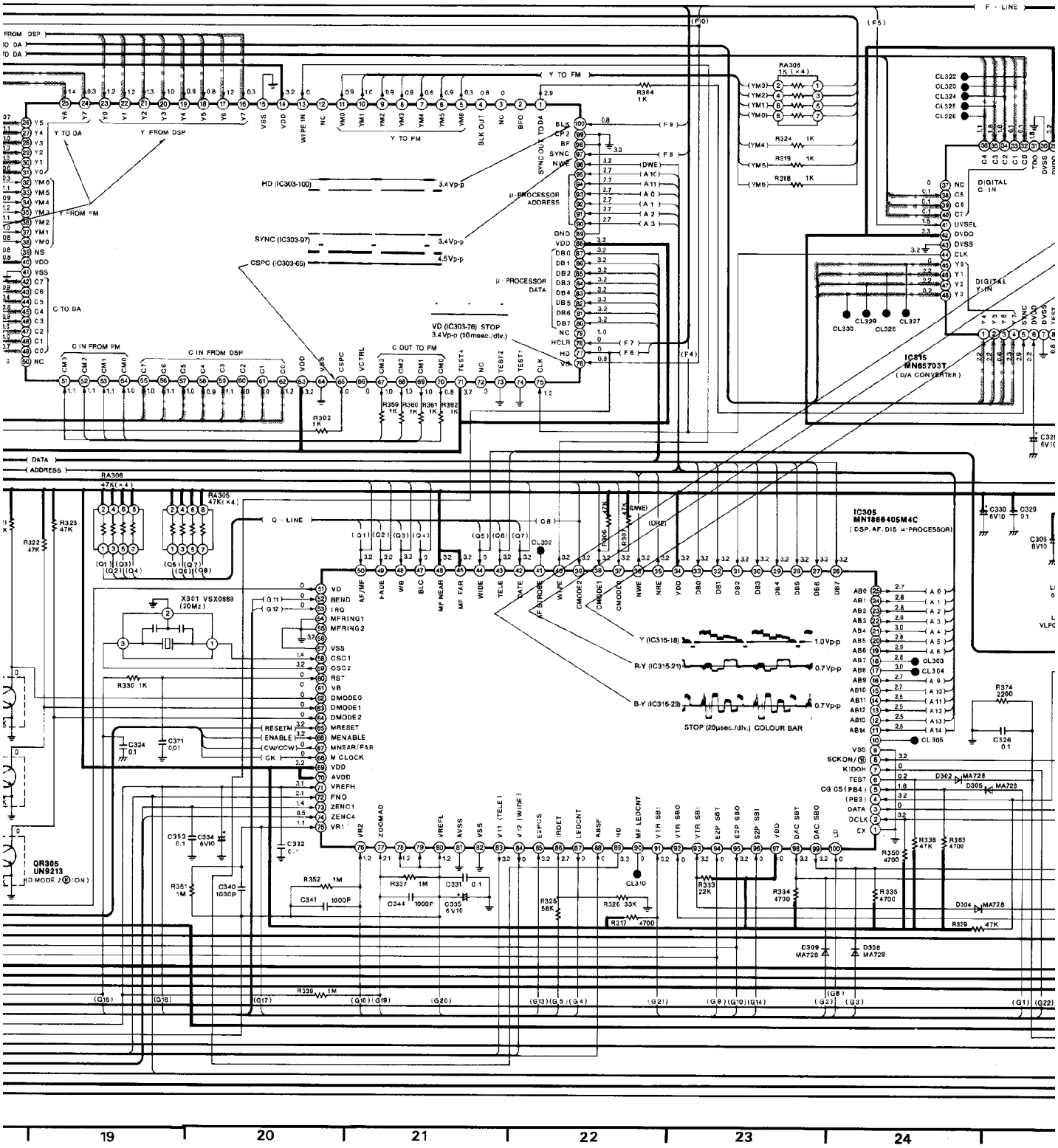

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

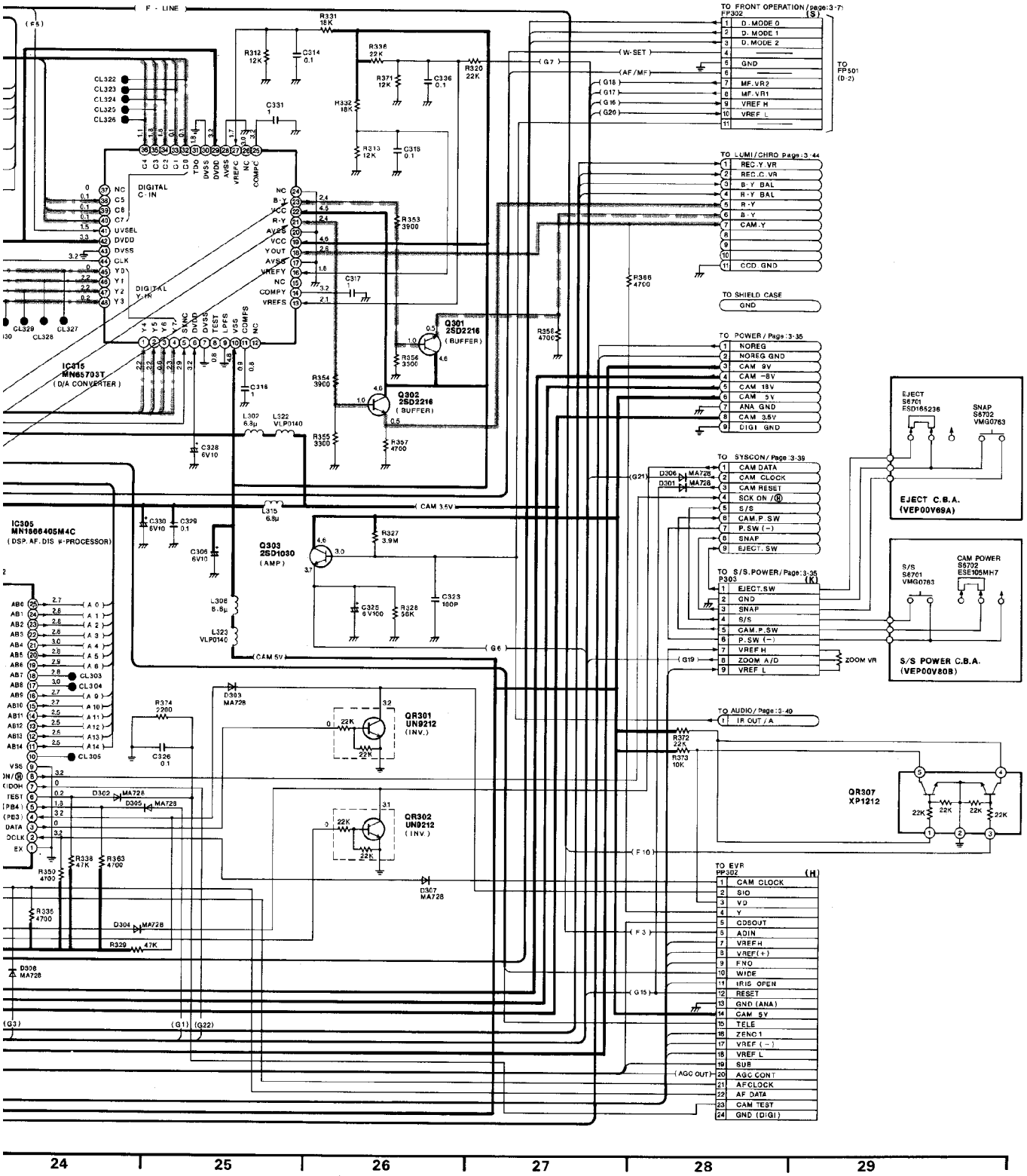

IC305
L7A1362
(DIS/MEMORY CTL/ZOOM)
IC310
ZA4035
(FM)
QR306
UN9213
RA327
RA326
RA301
RA302
RA331
RA330
RA329
RA328
R305
R304
R343
R344
R346
R345
C312
CL309
L318
VLP0145
DIGITAL VIDEO SIGNAL OUT
DIGITAL VIDEO SIGNAL OUT
DIGITAL Y OUT
K - LINE
F - LINE
DIGITAL C
DIGITAL Y
DIGITAL C
FIELD MEMORY Y
FIELD MEMORY C
DIGITAL C
ADDRESS
FM C
FM Y
CPU DATA
CPU ADDRESS
CPU ADDRESS
CPU ADDRESS
RAMP OUTPUT (IC302-29)
HD (IC302-41)
Y7 (IC302-67, IC303-16, 24)
(IC306-1, 28, 75, 83)
Y6 (IC302-66, IC303-17, 25)
(IC306-2, 27, 76, 84)
Y5 (IC302-69, IC303-18, 26)
(IC306-3, 26, 77, 85)
Y4 (IC302-70, IC303-19, 27)
(IC306-4, 25, 78, 86)
3.4Vp-p
3.4Vp-p
3.0Vp-p
3.0Vp-p
0.5sec./div.)


F - LINE
Y FROM DSP
FM Y
DIGITAL Y-OUT
FIELD MEMORY Y-OUT
FIELD MEMORY C-OUT
RAMP OUTPUT (IC302-29)
HD (IC302-41)
STOP (20μsec./div.)
RAMP GENERATOR
DIGITAL C-IN
FIELD MEMORY Y-IN
FIELD MEMORY C-IN
RA325 1K (×4)
RA324 1K (×4)
RA323 1K (×4)
RA322 1K (×4)
RA321 1K (×4)
RA320 1K (×4)
RA309 1K (×4)
RA310 1K (×4)
RA311 1K (×4)
RA312 1K (×4)
Y TO DA
C TO DA
Y FROM FM
C IN FROM FM
IC303 MN467332 OT L7A1193 (ZOOM)
L308 68μ
L309 VLP6146
L320 VLP0175
L307 6.8μ
C319 6V10
C315 0.01
R347 1K
R349 100K
C338 6V10
C337 0.1
R321 47K
R322 47K
R323 47K
DIGITAL C
DATA
ADDRESS
R314 4700
R315 4700
R316 4700
VCC HOLD CK SI
CS SO WP GND
IC309 X25040S
CL313
CL314
CL311
CL308
QR303 UN9219 (D MODE 0 ⓗ:ON)
QR304 UN9213 (D MODE 1 ⓗ:ON)
QR305 UN9213 (D MODE 2 ⓗ:ON)
R343 47K
R341 47K
R340 47K
D MODE 0
D MODE 1
D MODE 2
CAM 3.5V
(F2)
(G13)(G14)
(G15)
13
14
15
16
17
18
19

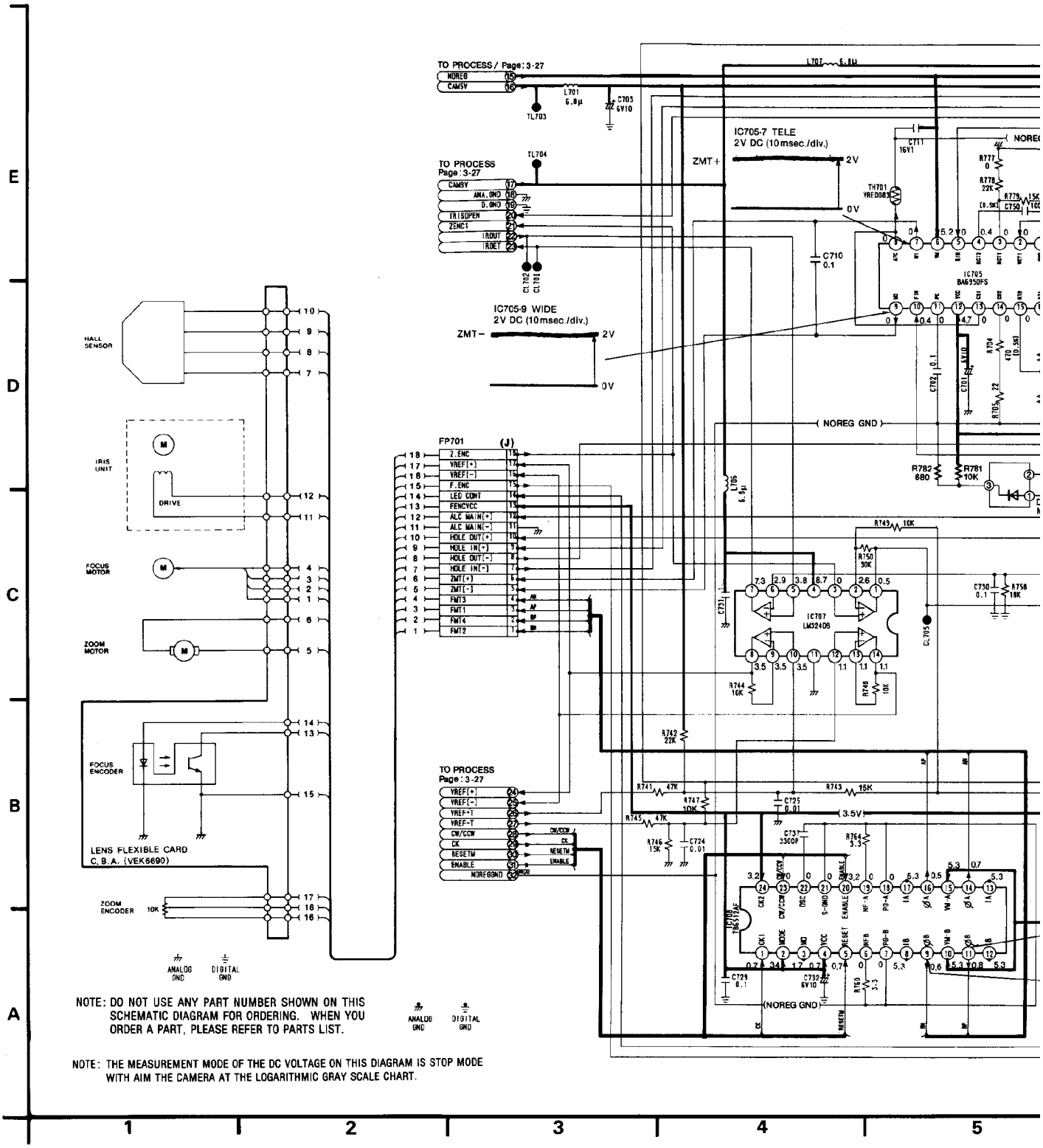
VIDEO SIGNAL — DIGITAL Y SIGNAL — DIGITAL C SIGNAL



SIGNAL ——— Y SIGNAL ——— R-Y SIGNAL ——— B-Y SIGNAL

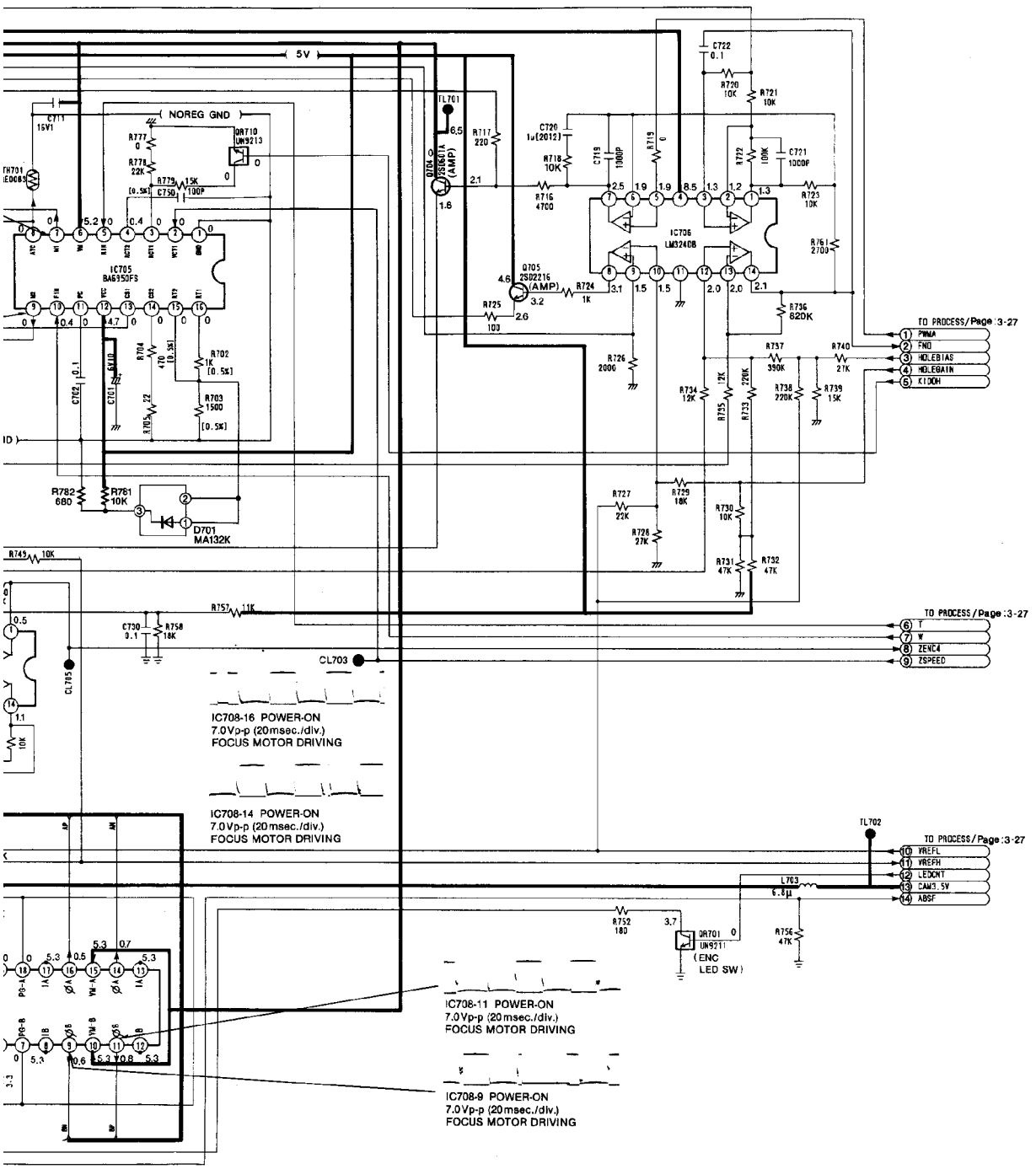


# 3-13. LENS DRIVE SCHEMATIC DIAGRAM




NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

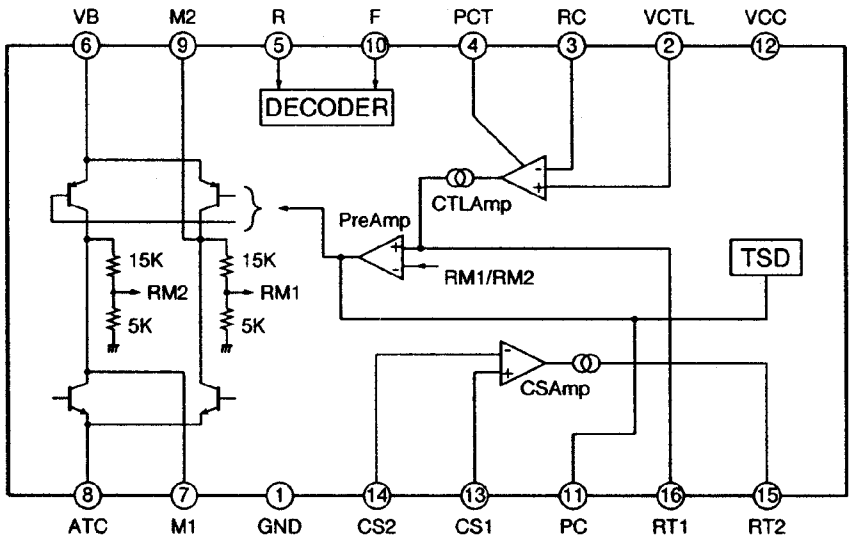
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.


5V
NOREG GND
IC705
BA6950FS
IC706
LM324DB
D701
MA132K
TO PROCESS/Page:3-27
PWMA
FWD
HDLEBIAS
HDLEGAIN
KICKH
T
W
ZENC4
ZSPEED
TO PROCESS/Page:3-27
VREFL
VREFH
LEDCNT
CAM3.5V
ABSF
CL703
IC708-16 POWER-ON
7.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC708-14 POWER-ON
7.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC708-11 POWER-ON
7.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC708-9 POWER-ON
7.0Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
(ENC
LED SW)

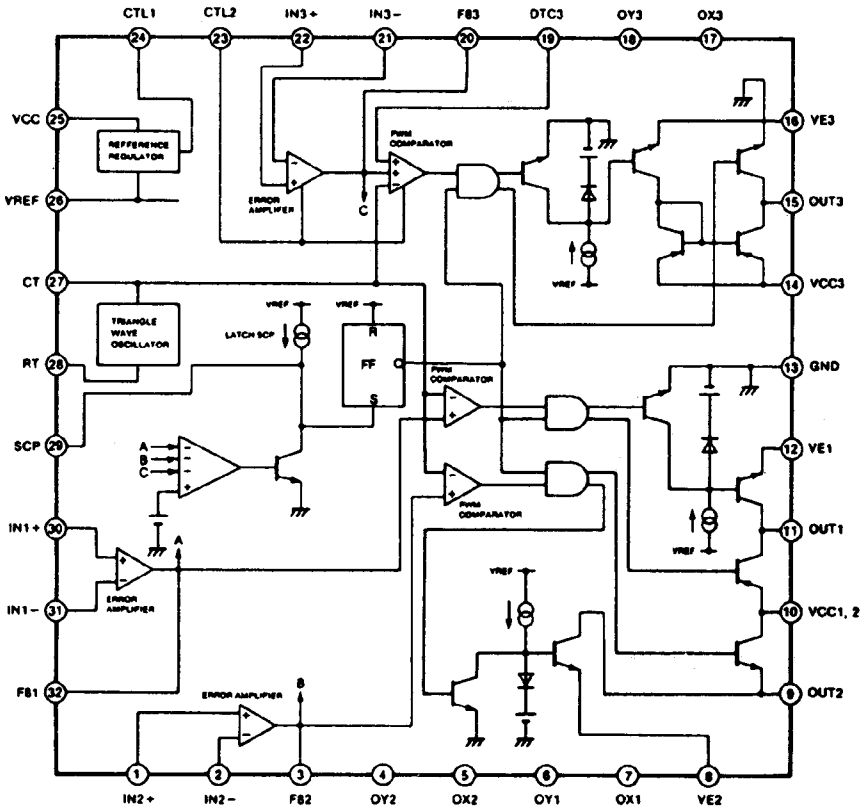
5 6 7 8

# IC BLOCK

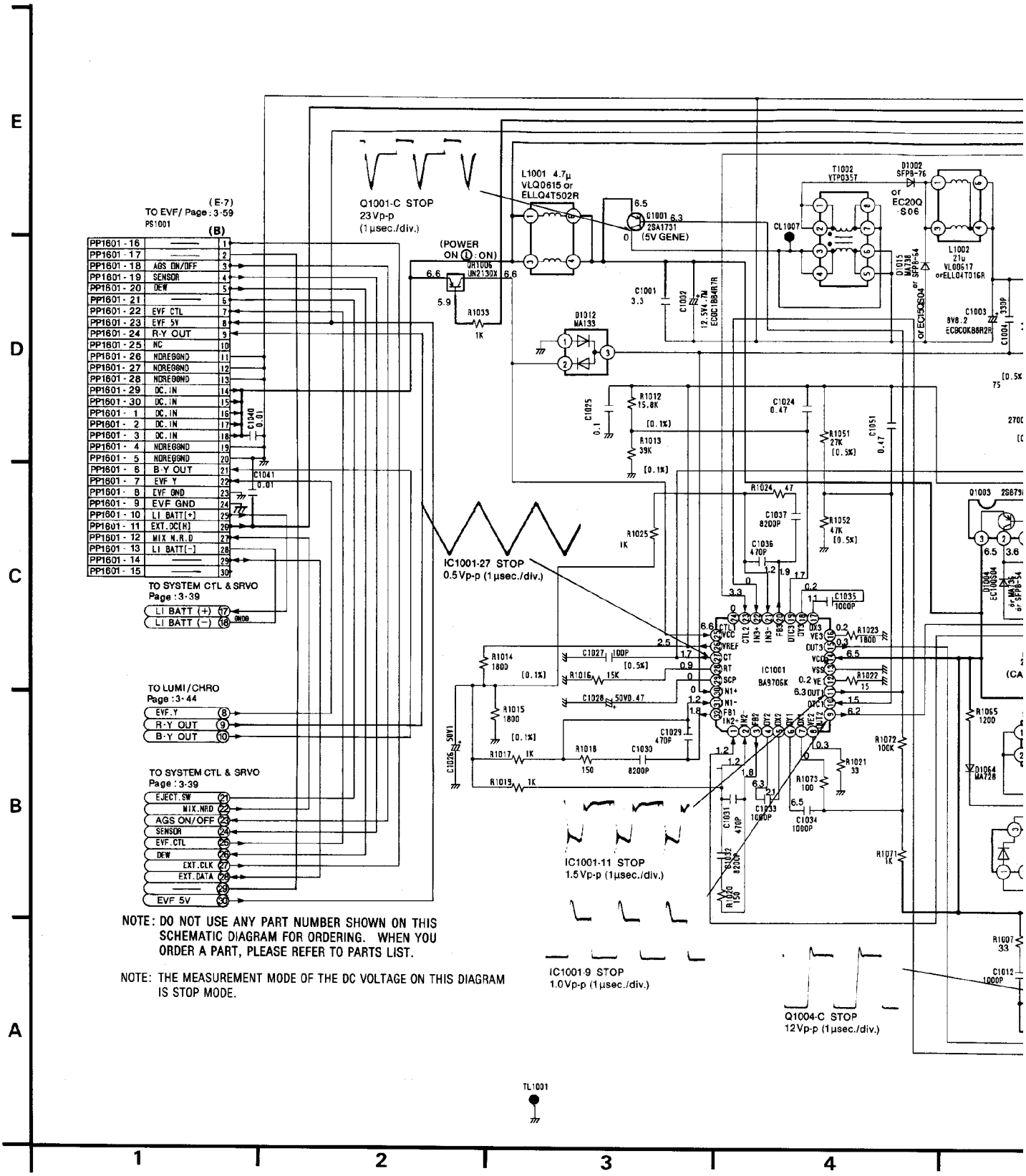
**IC705 (BA6950FS)**
**(LOCATION: D-5)**

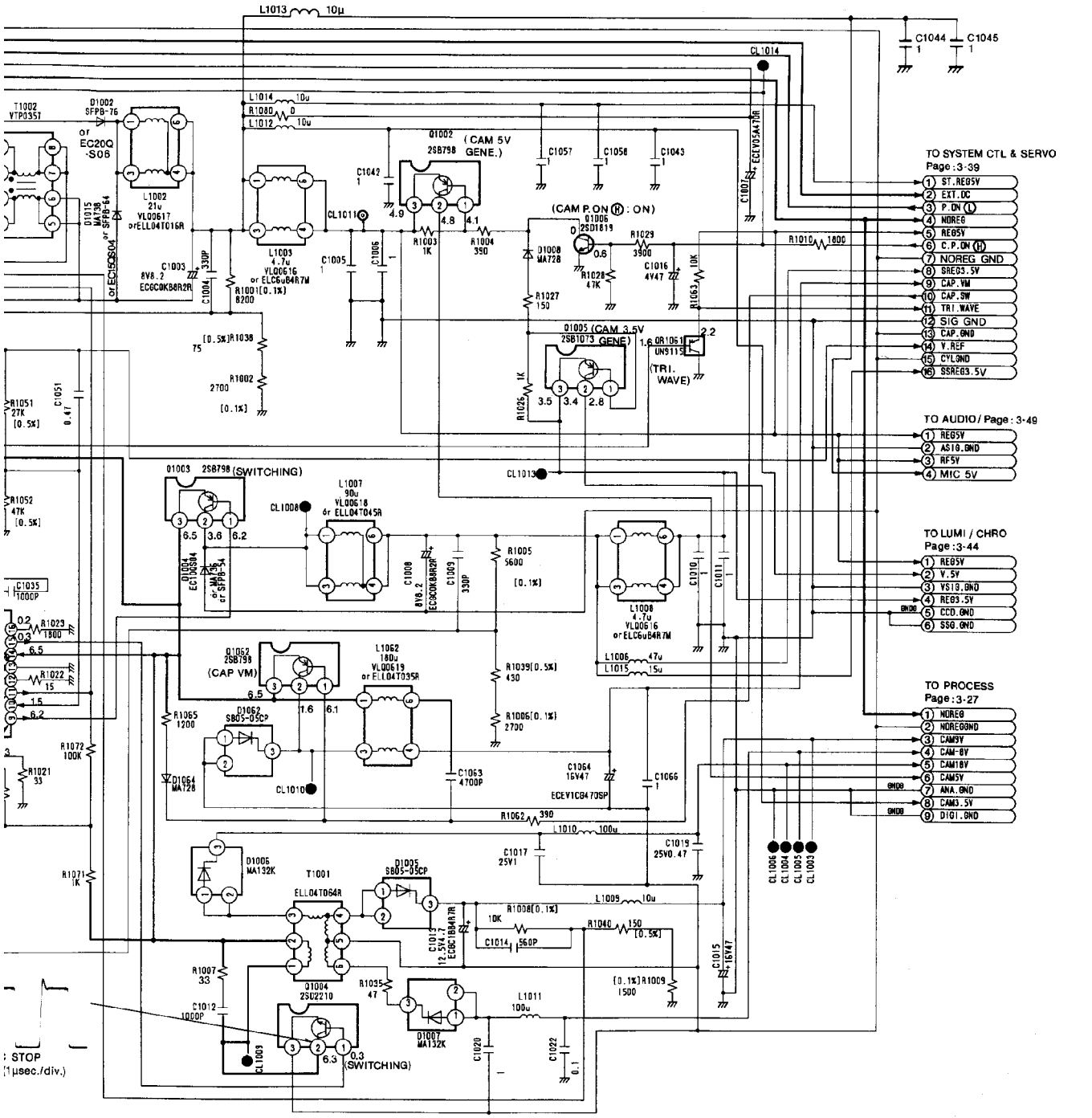



**IC1001 (BA9706K)**
**(LOCATION: C-4)**



# 3-14. POWER SCHEMATIC DIAGRAM




TO SYSTEM CTL & SERVO
Page :3-39
1 ST.REG5V
2 EXT.DC
3 P.ON
4 NOREG
5 REG5V
6 C.P.ON
7 NOREG GND
8 SREG3.5V
9 CAP.VM
10 CAP.SW
11 TRI.WAVE
12 SIG GND
13 CAP.GND
14 V.REF
15 CYLGND
16 SSREG3.5V
TO AUDIO / Page : 3-49
1 REG5V
2 AS10.GND
3 RF5V
4 MIC 5V
TO LUMI / CHRO
Page :3-44
1 REG5V
2 V.5V
3 VS10.GND
4 REG3.5V
5 CCD.GND
6 SSG.GND
TO PROCESS
Page :3-27
1 NOREG
2 NOREGGND
3 CAM3V
4 CAM-8V
5 CAM18V
6 CAM5V
7 ANA.GND
8 CAM3.5V
9 DIGI.GND
L1013 10µ
L1014 10u
R1080 0
L1012 10u
Q1002 2SB798 (CAM 5V GENE.)
(CAM P.ON H : ON)
Q1005 (CAM 3.5V 2SB1073 GENE)
(TRI. WAVE)
Q1003 2SB798 (SWITCHING)
(CAP VM)
0.3 (SWITCHING)
STOP
(1µsec./div.)
4
5
6
7
8

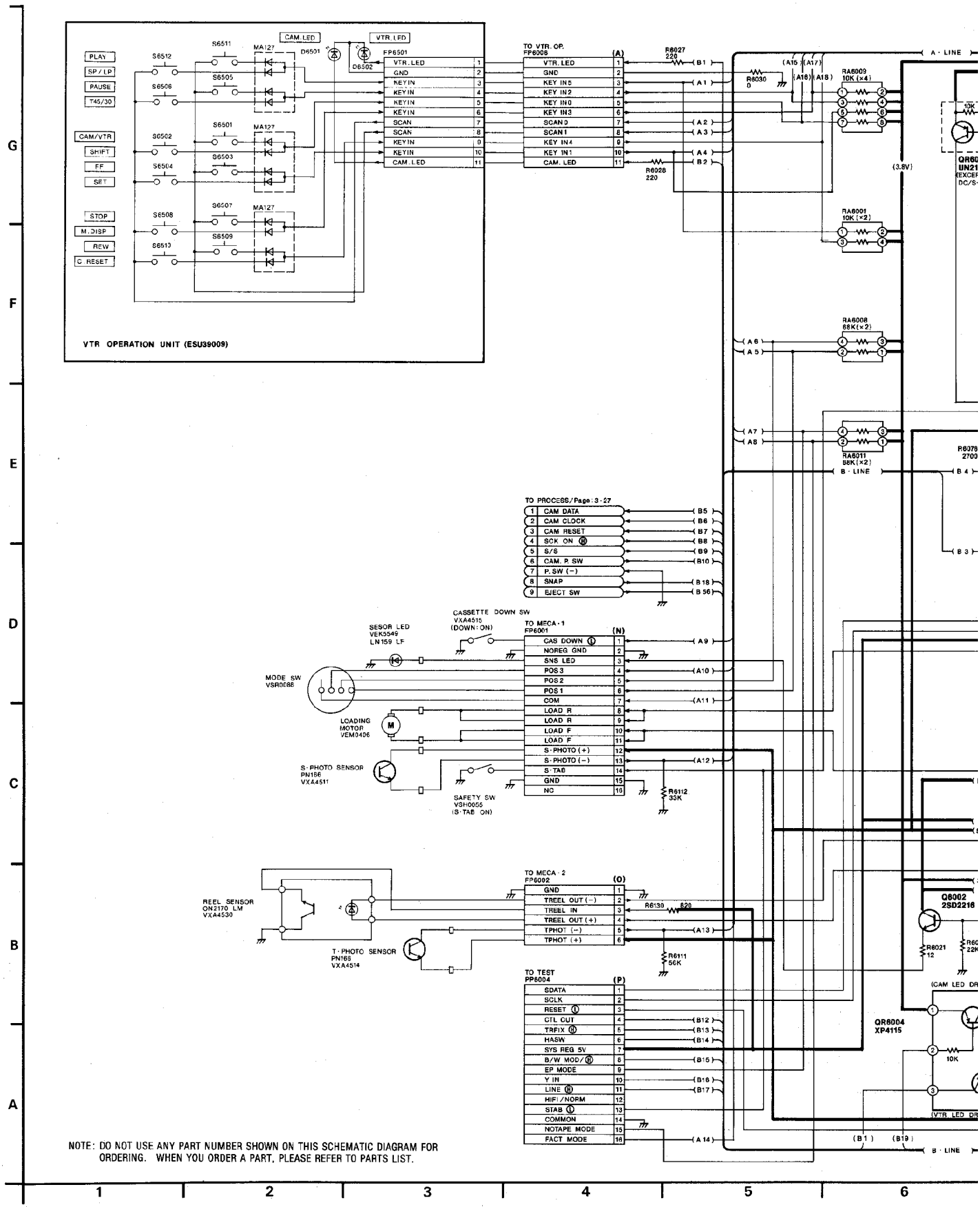
# SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| STOP | 0 | 3.5 | 3.6 | 0 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 0 | 3.6 | 0 | 0 | 0 | 3.6 | 3.6 | 0 | 0 | 0 | 0 |
| PLAY | 0 | 0 | 3.6 | 0 | 0 | 3.6 | 3.6 | 0 | 0 | 3.6 | 0 | 0 | 0 | 0 | 3.6 | 1.8 | 0 | 0 | 0 | 0 |
| F.F | 0 | 3.5 | 3.6 | 0 | 3.3 | 3.3 | 3.6 | 3.6 | 0 | 0 | 3.6 | 0 | 0 | 0 | 3.6 | 1.8 | 0 | 0 | 0 | 0.2 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| STOP | 0 | 0 | 1.8 | 2.0 | 2.0 | 0 | 0 | 0 | 1.8 | 0 | 0 | 2.0 | 3.0 | 3.6 | 2.3 | 2.5 | 3.6 | 1.7 | 0 | 0 |
| PLAY | 0 | 0 | 1.8 | 0 | 3.6 | 0 | 0 | 0.2 | 0.8 | 0 | 0 | 0 | 3.4 | 3.6 | 2.7 | 3.6 | 3.6 | 1.7 | 1.7 | 0 |
| F.F | 0 | 0 | 0.1 | 0 | 3.6 | 0 | 0 | 0.3 | 1.8 | 0 | 0 | 0.1 | 3.4 | 3.6 | 2.7 | 2.4 | 3.6 | 1.7 | 1.7 | 0 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 |
| STOP | 3.6 | 0 | 0 | 0 | 0 | 0.7 | 3.6 | 0 | 0 | 0 | 0 | 2.9 | 2.8 | 2.8 | 2.0 | 1.7 | 3.2 | 1.6 | 3.6 | 0.9 |
| PLAY | 3.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0.7 | 0.1 | 0 | 1.8 | 3.0 | 3.0 | 2.8 | 1.6 | 1.6 | 3.2 | 0 | 3.6 | 0 |
| F.F | 3.6 | 0 | 0 | 0 | 0 | 0.9 | 3.6 | 0 | 0 | 0 | 0 | 3.0 | 3.0 | 2.9 | 2.8 | 3.3 | 3.2 | 0 | 3.6 | 0.8 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| STOP | 3.6 | 0 | 3.6 | 0.3 | 0 | 3.3 | 3.0 | 3.6 | 0.2 | 0 | 0 | 3.2 | 3.2 | 1.1 | 1.4 | 0 | 0 | 0 | 1.7 | 1.6 |
| PLAY | 3.6 | 0 | 1.3 | 0 | 0 | 3.3 | 3.3 | 3.6 | 0.2 | 0 | 0 | 3.2 | 0 | 1.1 | 1.6 | 1.6 | 0.1 | 0 | 1.8 | 1.8 |
| F.F | 3.6 | 0 | 1.8 | 0 | 0 | 3.2 | 3.2 | 3.6 | 0.2 | 0 | 0 | 3.2 | 3.2 | 1.1 | 1.6 | 1.6 | 0.1 | 0 | 1.8 | 1.7 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| STOP | 1.6 | 1.9 | 3.6 | 0 | 0 | 0 | 1.6 | 1.7 | 0 | 1.8 | 0 | 3.6 | 0 | 3.4 | 3.6 | 0 | 3.3 | 3.0 | 2.3 | 0 |
| PLAY | 1.7 | 1.8 | 3.6 | 0 | 0 | 0 | 1.8 | 1.8 | 0 | 1.5 | 1.8 | 3.6 | 1.5 | 1.9 | 3.6 | 1.5 | 3.3 | 3.0 | 2.3 | 2.8 |
| F.F | 1.7 | 1.8 | 3.6 | 0 | 0 | 0 | 1.7 | 1.8 | 0 | 0.4 | 1.8 | 3.6 | 1.5 | 1.9 | 3.6 | 0.9 | 3.3 | 3.0 | 2.3 | 0 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 |
| STOP | 0 | 0 | 0 | 3.2 | 0 | 0 | 0 | 0 | 3.6 | 0 | 0 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 0 | 0 |
| PLAY | 0 | 0 | 0 | 1.6 | 1.6 | 0 | 0 | 0 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 0 |
| F.F | 0 | 0 | 0 | 1.6 | 1.6 | 0 | 0 | 0 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 0 |
| REF. NO. | IC6001 | | | | | | | | | | | | | | | | | | | |
| MODE | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | | | | | | | | | | | | |
| STOP | 0.1 | 0 | 3.6 | 3.6 | 3.6 | 0 | 0 | 0 | | | | | | | | | | | | |
| PLAY | 0.1 | 0 | 3.6 | 3.6 | 3.6 | 0 | 0 | 0 | | | | | | | | | | | | |
| F.F | 0.1 | 0 | 3.5 | 3.6 | 3.6 | 0 | 0 | 0 | | | | | | | | | | | | |
| REF. NO. | IC6002 | | | | | | | | | | | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | | | | | | | | |
| STOP | 0 | 0 | 0.3 | 0 | 1.8 | 3.3 | 3.2 | 3.4 | | | | | | | | | | | | |
| PLAY | 0 | 0.7 | 0 | 0 | 1.8 | 0 | 1.6 | 3.4 | | | | | | | | | | | | |
| F.F | 0 | 0 | 0.3 | 0 | 1.8 | 0 | 0 | 3.4 | | | | | | | | | | | | |
| REF. NO. | IC6003 | | | | | | | | | | | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| STOP | 3.2 | 3.0 | 1.6 | 3.5 | 0 | 0 | 1.3 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.3 | 3.0 |
| PLAY | 3.2 | 3.0 | 1.6 | 3.5 | 3.3 | 0 | 1.3 | 1.3 | 0 | 1.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.3 | 3.0 |
| F.F | 3.2 | 3.2 | 3.2 | 3.5 | 3.3 | 0 | 1.3 | 1.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3.3 | 3.0 |
| REF. NO. | IC6004 | | | | | | | | | | | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | | | | | | |
| STOP | 0 | 3.2 | 3.3 | 3.0 | 1.3 | 0 | 0 | 0.2 | 0.1 | 3.2 | 3.2 | 0 | 0.2 | 3.3 | | | | | | |
| PLAY | 3.0 | 0 | 0.4 | 0 | 0 | 0 | 0 | 0.1 | 0.4 | 3.2 | 3.2 | 0 | 0.6 | 3.3 | | | | | | |
| F.F | 3.0 | 3.2 | 3.1 | 0 | 1.3 | 0 | 0 | 0.3 | 0.2 | 3.2 | 3.2 | 0 | 0.3 | 3.3 | | | | | | |
| REF. NO. | IC6005 | | | | | | | | | | IC6006 | | | | | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | |
| STOP | 0 | 5.3 | 4.7 | 0 | 0 | 3.0 | 2.6 | 0 | | | 0 | 0.5 | 0.5 | 0 | 1.6 | 2.7 | 0 | 3.3 | | |
| PLAY | 0 | 5.3 | 4.7 | 0 | 0 | 3.0 | 0 | 0 | | | 1.7 | 0.5 | 0.5 | 0 | 1.6 | 1.3 | 1.7 | 3.3 | | |
| F.F | 0 | 5.1 | 4.7 | 0 | 0 | 0 | 0 | 0 | | | 1.6 | 0.5 | 0.5 | 0 | 1.6 | 0.8 | 1.6 | 3.3 | | |
| REF. NO. | IC6007 | | | | | | | | | | IC6008 | | | | | | | | | |
| MODE | 1 | 2 | 3 | | | | | | | | 1 | 2 | 3 | 4 | 5 | | | | | |
| STOP | 0 | 5.3 | 3.6 | | | | | | | | 0 | 0 | 0 | 3.6 | 3.6 | | | | | |
| PLAY | 0 | 5.3 | 3.6 | | | | | | | | 0 | 0 | 0 | 3.6 | 3.6 | | | | | |
| F.F | 0 | 5.2 | 3.6 | | | | | | | | 0 | 0 | 0 | 3.6 | 3.6 | | | | | |

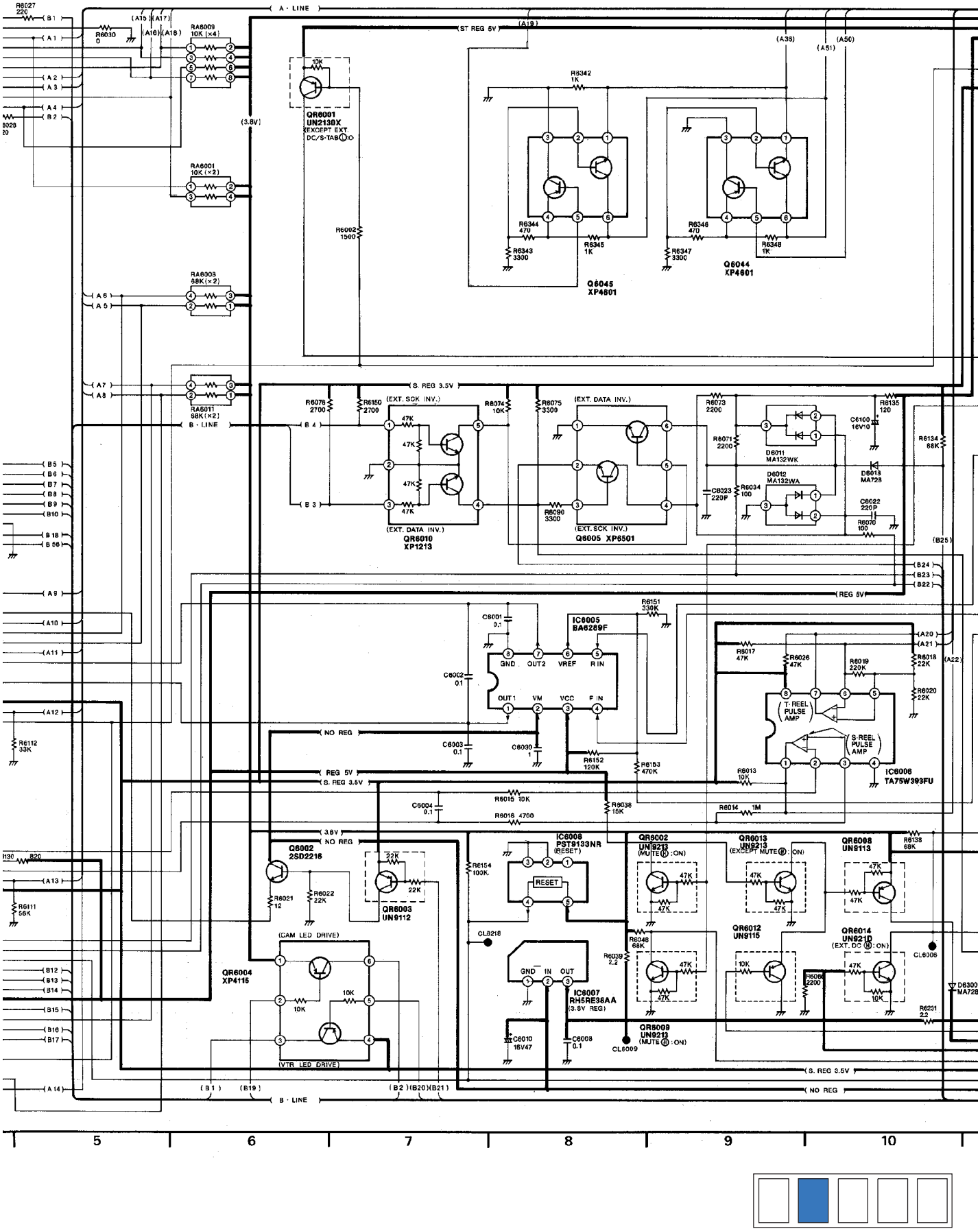
# SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

| REF. NO. | Q6002 | | | Q6003 | | | Q6004 | | | Q6005 | | | | | | Q6006 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MODE | E | C | B | E | C | B | E | C | B | 1 | 2 | 3 | 4 | 5 | 6 | E | C | B |
| STOP | 0.1 | 5.3 | 0 | 5.3 | 5.0 | 4.7 | 2.5 | 3.0 | 0.1 | 0 | 2.5 | 0.1 | 4.5 | 0 | 4.4 | 5.3 | 5.3 | 4.8 |
| PLAY | 0.1 | 5.3 | 0 | 5.3 | 5.0 | 4.7 | 3.6 | 3.8 | 0.2 | 0 | 2.5 | 0.1 | 4.6 | 0 | 4.5 | 5.3 | 5.3 | 4.8 |
| F.F | 0.3 | 5.2 | 0.3 | 5.1 | 5.0 | 4.6 | 2.5 | 3.2 | 0.1 | 0 | 2.5 | 0.1 | 4.5 | 0 | 4.3 | 5.2 | 5.2 | 4.6 |
| REF. NO. | Q6008 | | | | | | Q6044 | | | | | | Q6045 | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| STOP | 2.3 | 1.8 | 2.5 | 5.0 | 4.7 | | 0.1 | 0.5 | 0 | 0.5 | 0 | 4.7 | 0 | 0.5 | 0 | 0.6 | 0 | 4.7 |
| PLAY | 2.3 | 1.8 | 2.5 | 5.0 | 4.7 | | 0 | 0.5 | 0 | 0.5 | 0 | 4.7 | 0 | 0.5 | 0 | 0.6 | 0 | 4.7 |
| F.F | 2.3 | 1.8 | 2.5 | 5.1 | 4.5 | | 0 | 0.5 | 0 | 0.5 | 0 | 4.7 | 0 | 0.5 | 0 | 0.6 | 0 | 4.7 |
| REF. NO. | Q6201 | | | Q6202 | | | | | | | | | | | | | | |
| MODE | E | C | B | E | C | B | | | | | | | | | | | | |
| STOP | 3.6 | 3.5 | 3.0 | 0 | 0 | 0.6 | | | | | | | | | | | | |
| PLAY | 3.6 | 3.5 | 3.0 | 0 | 4.7 | 0 | | | | | | | | | | | | |
| F.F | 3.6 | 3.5 | 3.0 | 0 | 0 | 0.6 | | | | | | | | | | | | |
| REF. NO. | QR6001 | | | QR6002 | | | | | | QR6003 | | | QR6004 | | | | | |
| MODE | E | C | B | 1 | 2 | 3 | 4 | 5 | 6 | E | C | B | 1 | 2 | 3 | 4 | 5 | 6 |
| STOP | 4.7 | 5.0 | 4.7 | 0 | 3.6 | 4.7 | 0 | 0 | 0 | 3.3 | 0 | 3.6 | 0 | 3.6 | 3.2 | 3.3 | 0 | 0 |
| PLAY | 4.7 | 5.0 | 4.7 | 0 | 3.6 | 4.7 | 0 | 0 | 0 | 3.3 | 0 | 3.6 | 3.6 | 3.6 | 3.2 | 3.3 | 0 | 0 |
| F.F | 4.7 | 5.0 | 4.7 | 0 | 3.5 | 4.7 | 0 | 0 | 0 | 3.3 | 0.3 | 3.2 | 3.6 | 3.6 | 3.2 | 3.3 | 0 | 0 |
| REF. NO. | QR6007 | | | QR6008 | | | QR6009 | | | Q6010 | | | | | | QR6011 | | |
| MODE | E | C | B | E | C | B | E | C | B | 1 | 2 | 3 | 4 | 5 | | E | C | B |
| STOP | 0 | 0 | 3.5 | 3.6 | 3.6 | 0 | 5.0 | 5.0 | 4.3 | 3.0 | 0 | 3.0 | 0.2 | 0.1 | | 0 | 0 | 3.6 |
| PLAY | 0 | 0 | 3.6 | 3.6 | 3.6 | 0 | 5.0 | 5.0 | 4.3 | 3.0 | 0 | 3.0 | 0.1 | 0.1 | | 0 | 0 | 3.6 |
| F.F | 0 | 0 | 3.6 | 3.6 | 3.6 | 0 | 5.0 | 5.0 | 4.3 | 3.0 | 0 | 3.0 | 0.1 | 0 | | 0 | 0 | 3.5 |
| REF. NO. | QR6012 | | | | | | QR6014 | | | QR6015 | | | QR6018 | | | | | |
| MODE | 1 | 2 | 3 | 4 | 5 | | E | C | B | E | C | B | E | C | B | | | |
| STOP | 3.5 | 0 | 3.6 | 0 | 0 | | 0 | 0 | 3.6 | 0 | 5.3 | 0 | 0 | 1.0 | 0.4 | | | |
| PLAY | 3.5 | 0 | 3.6 | 0 | 0 | | 0 | 0 | 3.6 | 0 | 4.4 | 0 | 0 | 0 | 0.4 | | | |
| F.F | 3.5 | 0 | 3.5 | 0 | 0 | | 0 | 0 | 3.6 | 0 | 3.8 | 0 | 0 | 1.0 | 0.4 | | | |

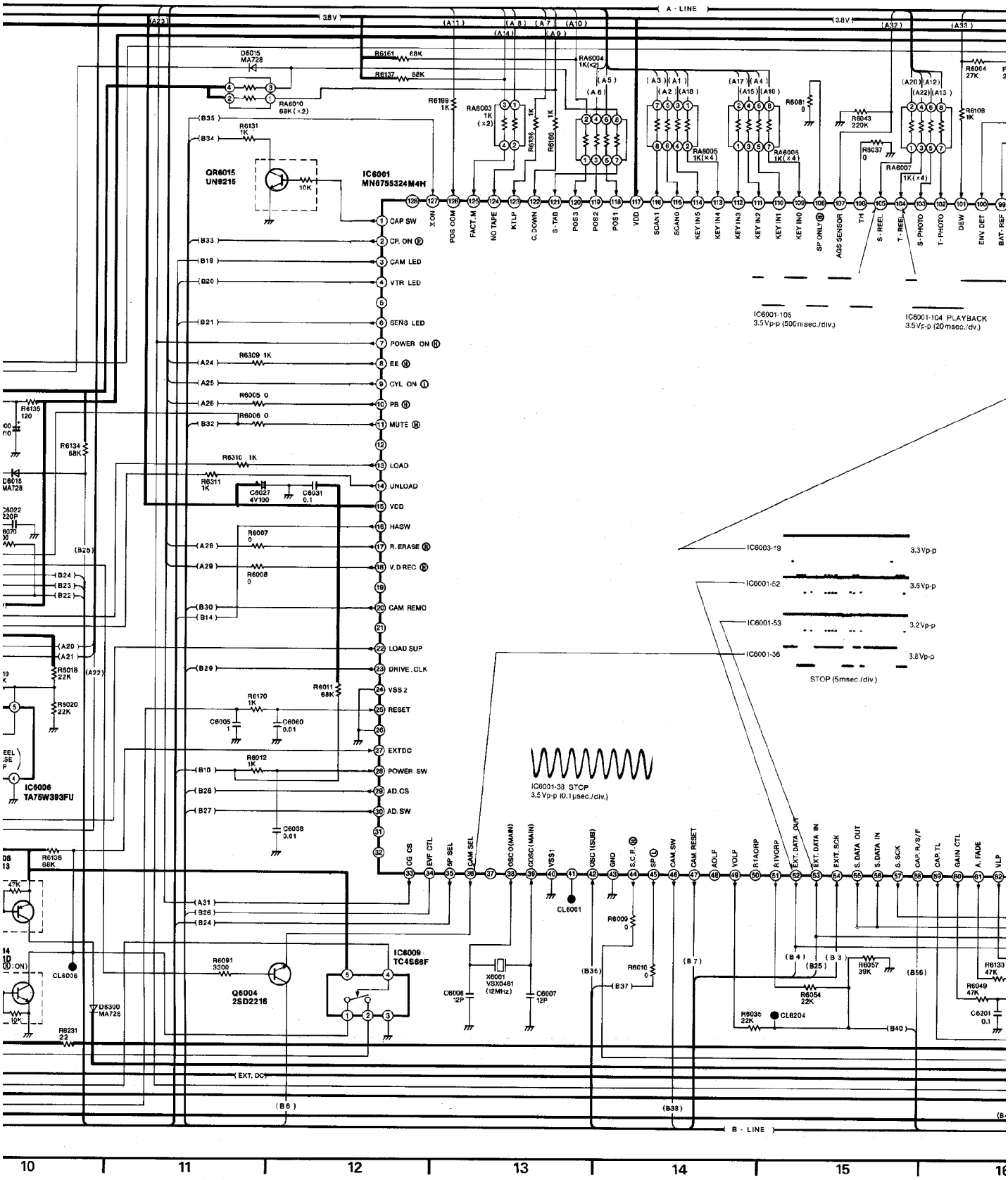
# 3-15. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM



# AGRAM

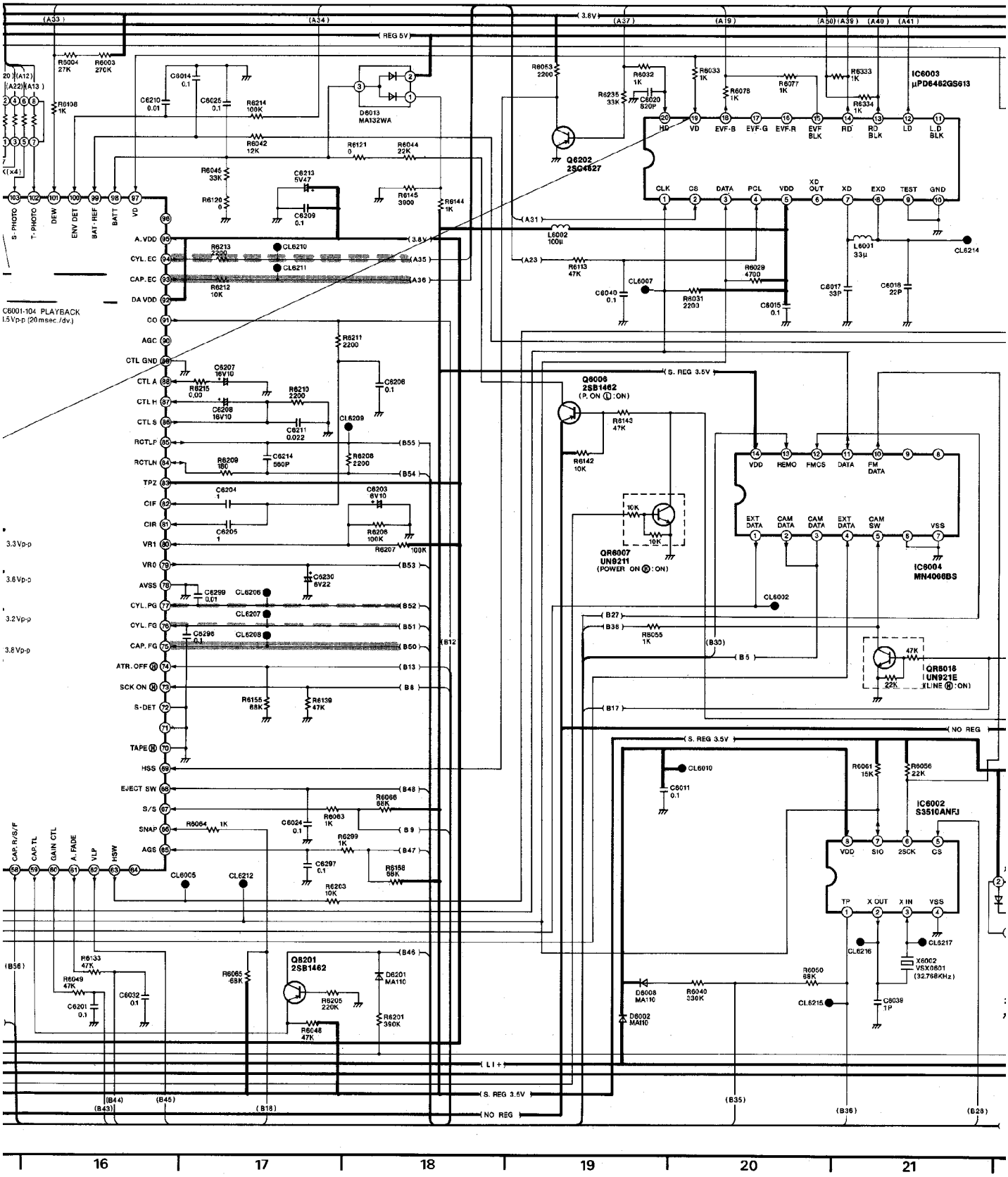

A · LINE
B · LINE
ST REG 5V
S. REG 3.5V
REG 5V
NO REG
(3.8V)
QR6001 UN2130X (EXCEPT EXT DC/S-TAB)
Q6044 XP4601
Q6045 XP4601
QR6010 XP1213
Q6005 XP6501
IC6005 BA6289F
IC6006 TA75W393FU
IC6008 PST9133NR (RESET)
IC6007 RH5RE38AA (3.8V REG)
Q6002 2SD2216
QR6003 UN9112
QR6004 XP4115
QR6008 UN9113
QR6009 UN9213
QR6012 UN9115
QR6013 UN9213
QR6014 UN9210
QR8002 UN9213
(CAM LED DRIVE)
(VTR LED DRIVE)
(EXT. SCK INV.)
(EXT. DATA INV.)
T-REEL PULSE AMP
S-REEL PULSE AMP
RESET
5
6
7
8
9
10

# CAPSTAN SERVO SPEED LOOP



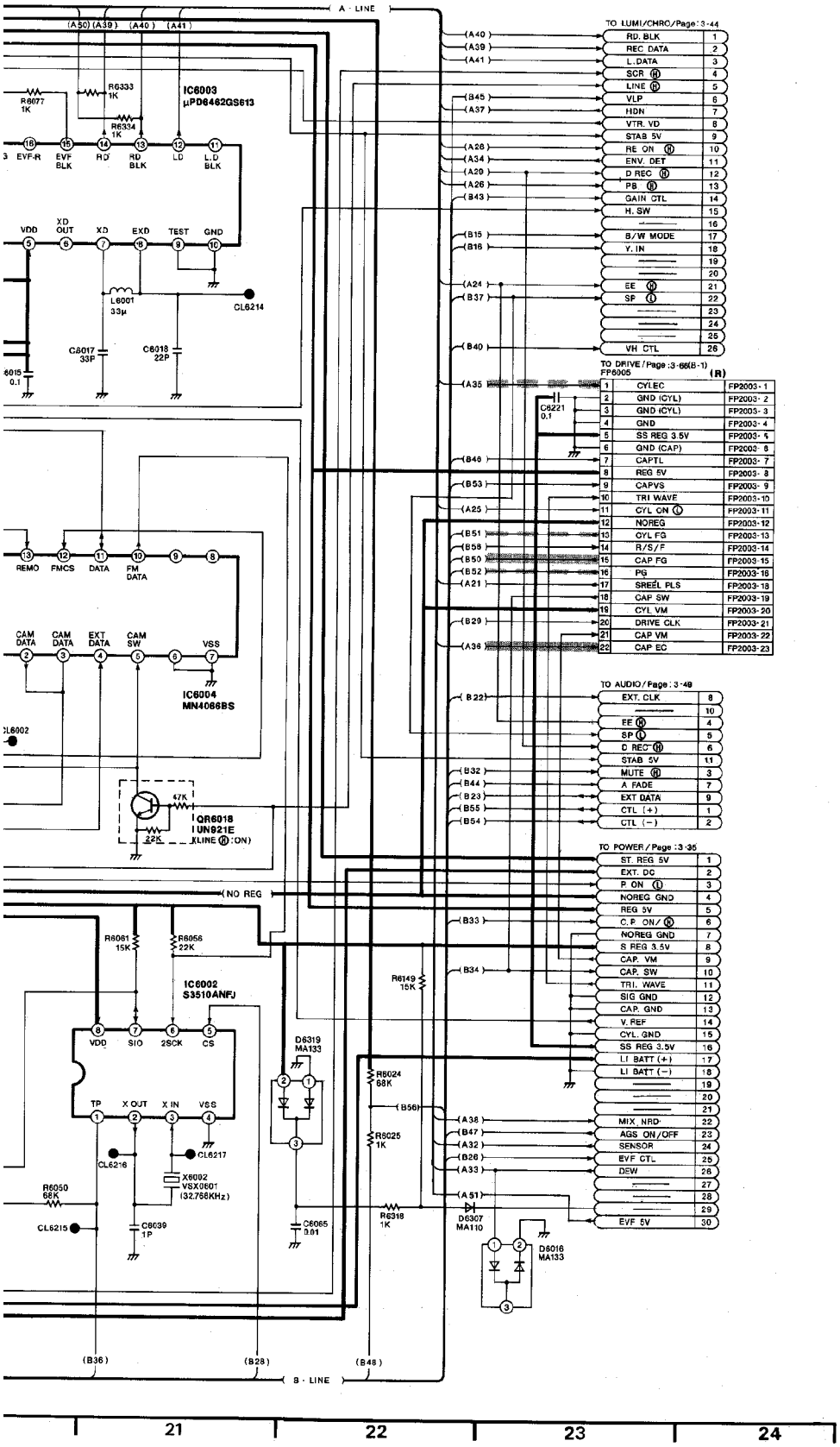
CAPSTAN SERVO PHASE LOOP

CYLINDER SERVO SPEED LOOP




16 17 18 19 20 21

PEED LOOP CYLINDER SERVO PHASE LOOP




| | | |
|---|---|---|
| 1 | RD. BLK | (A40) |
| 2 | REC DATA | (A39) |
| 3 | L.DATA | (A41) |
| 4 | SCR Ⓗ | |
| 5 | LINE Ⓗ | |
| 6 | VLP | (B45) |
| 7 | HDN | (A37) |
| 8 | VTR. VD | |
| 9 | STAB 5V | |
| 10 | RE ON Ⓗ | (A28) |
| 11 | ENV. DET | (A34) |
| 12 | D REC Ⓗ | (A29) |
| 13 | PB Ⓗ | (A26) |
| 14 | GAIN CTL | (B43) |
| 15 | H. SW | |
| 16 | | |
| 17 | B/W MODE | (B15) |
| 18 | Y. IN | (B16) |
| 19 | | |
| 20 | | |
| 21 | EE Ⓗ | (A24) |
| 22 | SP Ⓛ | (B37) |
| 23 | | |
| 24 | | |
| 25 | | |
| 26 | VH CTL | (B40) |

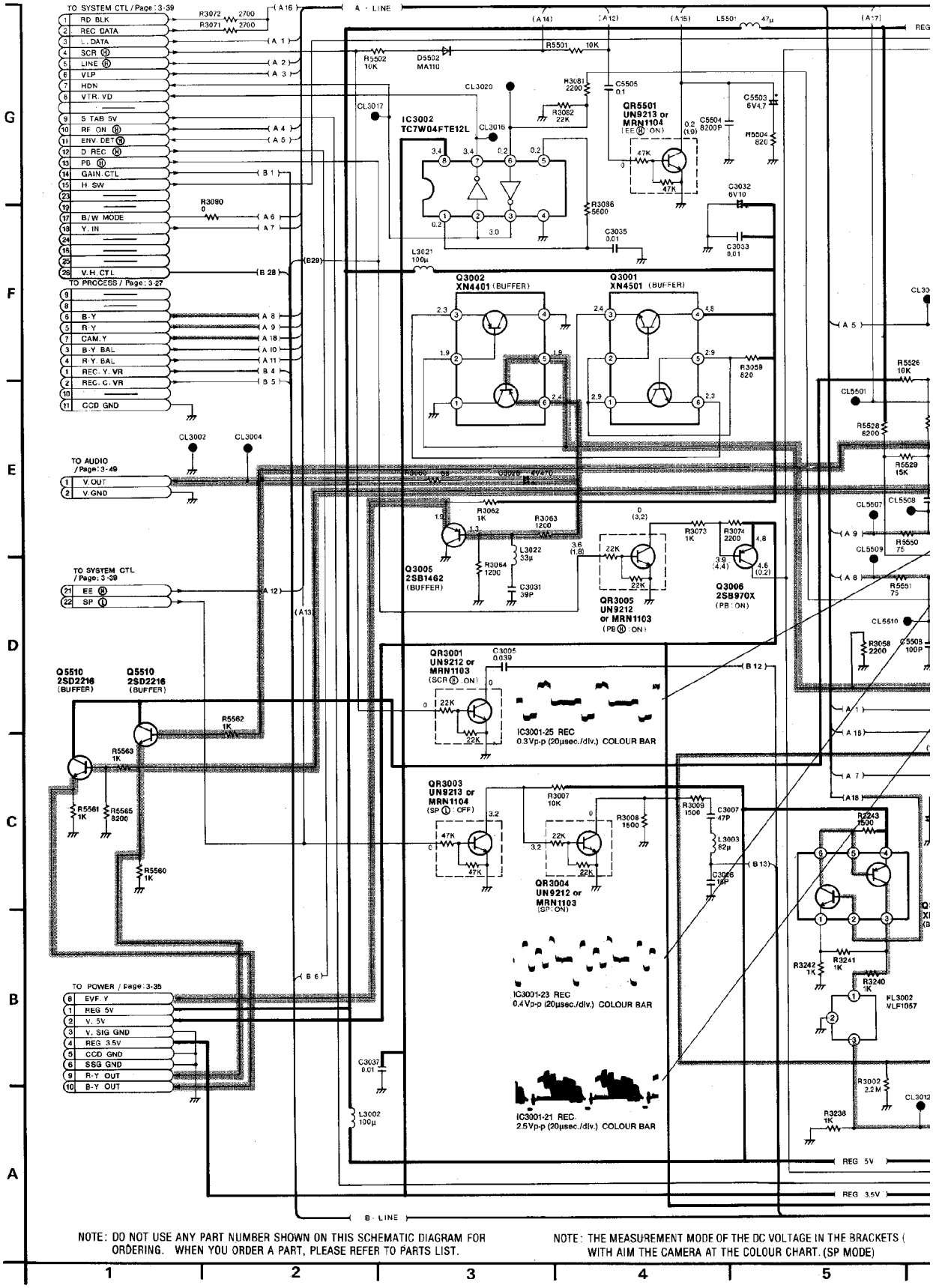
| | | |
|---|---|---|
| 1 | CYLEC | FP2003-1 |
| 2 | GND (CYL) | FP2003-2 |
| 3 | GND (CYL) | FP2003-3 |
| 4 | GND | FP2003-4 |
| 5 | SS REG 3.5V | FP2003-5 |
| 6 | GND (CAP) | FP2003-6 |
| 7 | CAPTL | FP2003-7 |
| 8 | REG 5V | FP2003-8 |
| 9 | CAPVS | FP2003-9 |
| 10 | TRI WAVE | FP2003-10 |
| 11 | CYL ON Ⓛ | FP2003-11 |
| 12 | NOREG | FP2003-12 |
| 13 | CYL FG | FP2003-13 |
| 14 | R/S/F | FP2003-14 |
| 15 | CAP FG | FP2003-15 |
| 16 | PG | FP2003-16 |
| 17 | SREEL PLS | FP2003-17 |
| 18 | CAP SW | FP2003-18 |
| 19 | CYL VM | FP2003-19 |
| 20 | DRIVE CLK | FP2003-20 |
| 21 | CAP VM | FP2003-21 |
| 22 | CAP EC | FP2003-22 |

| | | |
|---|---|---|
| 8 | EXT. CLK | (B22) |
| 10 | | |
| 4 | EE Ⓗ | |
| 5 | SP Ⓛ | |
| 6 | D REC Ⓗ | |
| 11 | STAB 5V | |
| 3 | MUTE Ⓗ | |
| 7 | A FADE | (B32) |
| 9 | EXT DATA | (B44) |
| 1 | CTL (+) | (B23) |
| 2 | CTL (−) | (B55) |
| | | (B54) |

| | | |
|---|---|---|
| 1 | ST. REG 5V | |
| 2 | EXT. DC | |
| 3 | P. ON Ⓛ | |
| 4 | NOREG GND | |
| 5 | REG 5V | |
| 6 | C.P. ON/Ⓛ | (B33) |
| 7 | NOREG GND | |
| 8 | S REG 3.5V | |
| 9 | CAP. VM | |
| 10 | CAP. SW | (B34) |
| 11 | TRI. WAVE | |
| 12 | SIG GND | |
| 13 | CAP. GND | |
| 14 | V. REF | |
| 15 | CYL. GND | |
| 16 | SS REG 3.5V | |
| 17 | LI BATT (+) | |
| 18 | LI BATT (−) | |
| 19 | | |
| 20 | | |
| 21 | | (B56) |
| 22 | MIX. NRD | (A38) |
| 23 | AGS ON/OFF | (B47) |
| 24 | SENSOR | (A32) |
| 25 | EVF CTL | (B26) |
| 26 | DEW | (A33) |
| 27 | | |
| 28 | | (A51) |
| 29 | | |
| 30 | EVF 5V | |

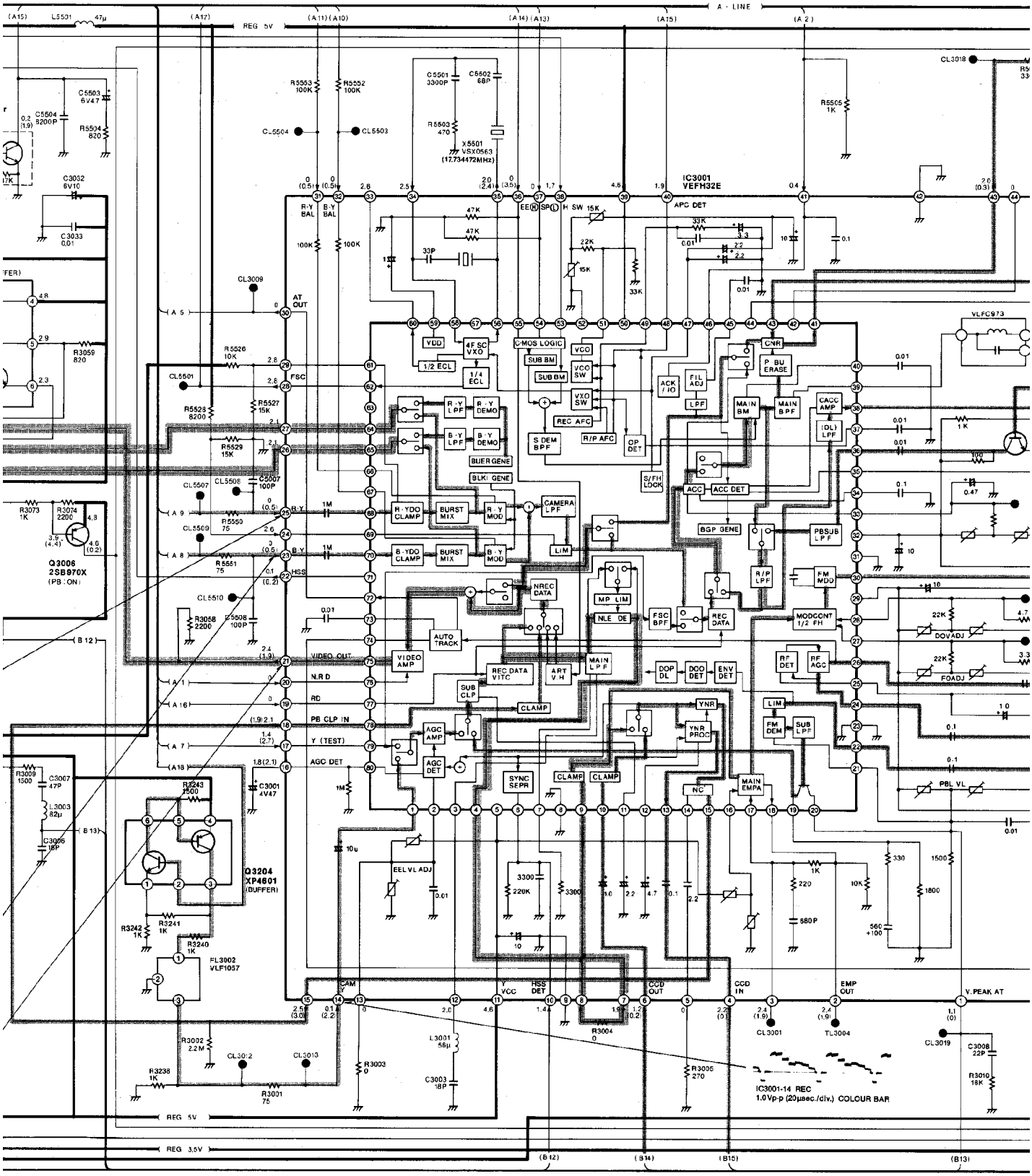
21 22 23 24

# 3-16. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIA



# P SCHEMATIC DIAGRAM

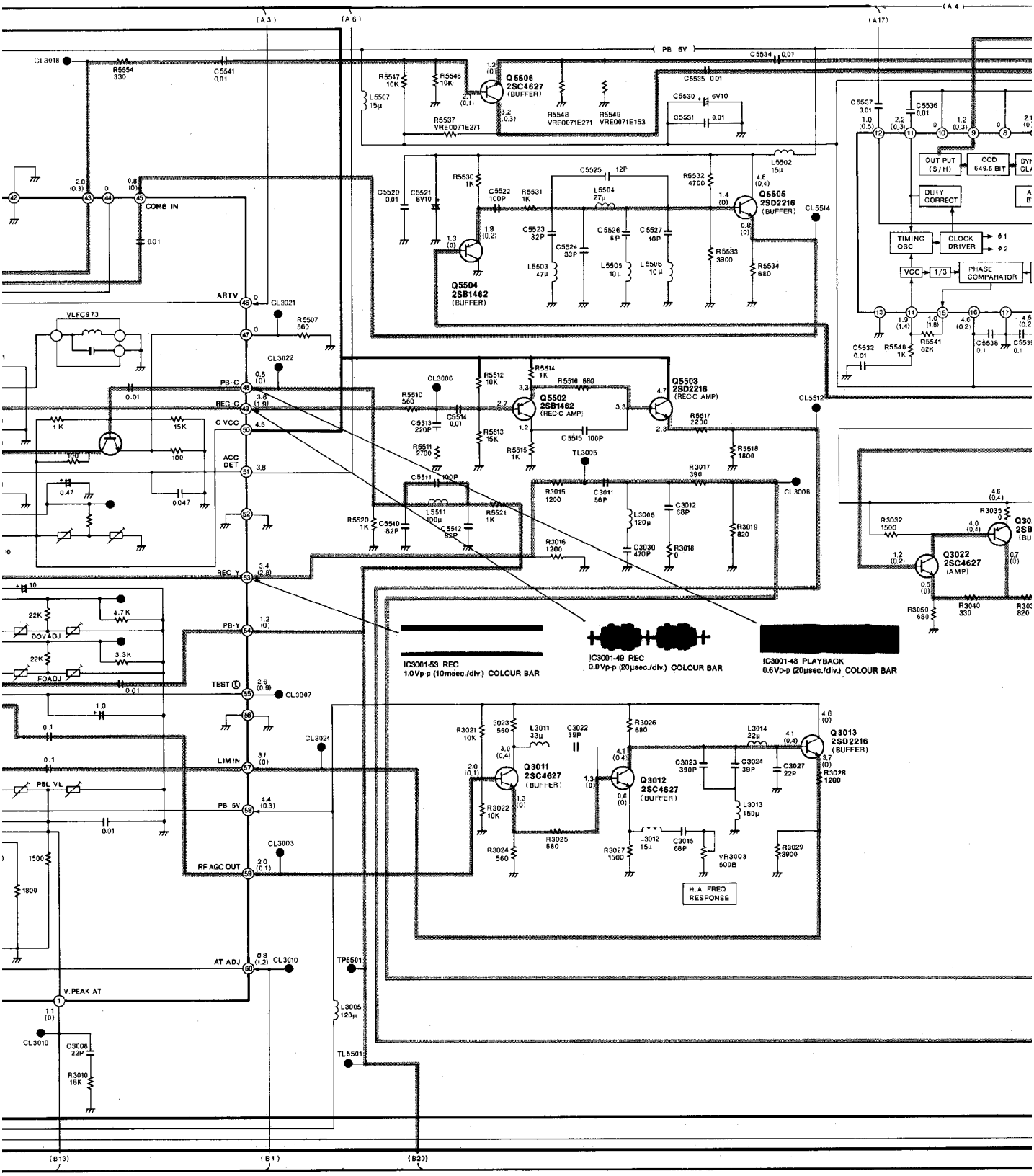





NT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE
AMERA AT THE COLOUR CHART. (SP MODE)

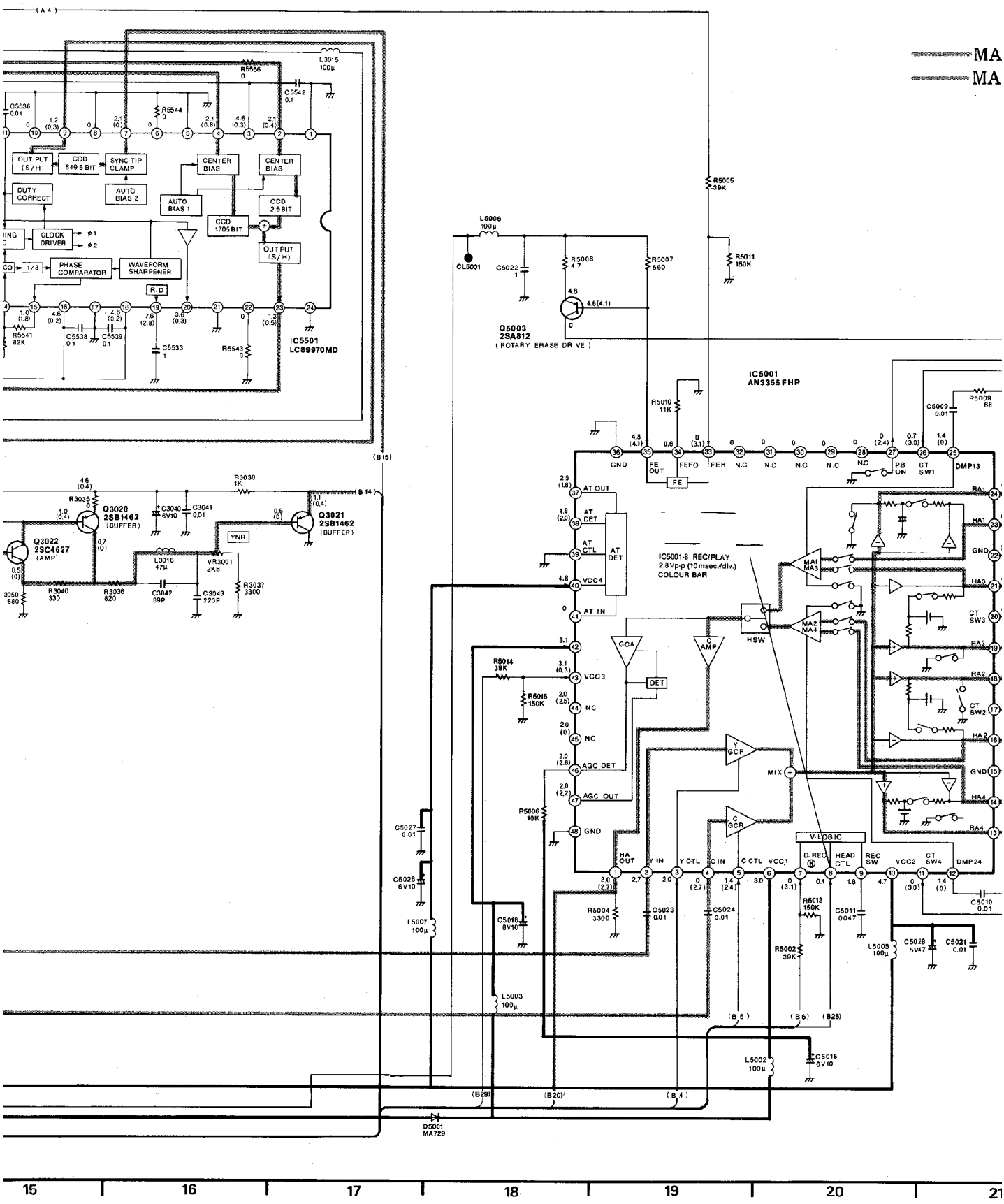
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

ion



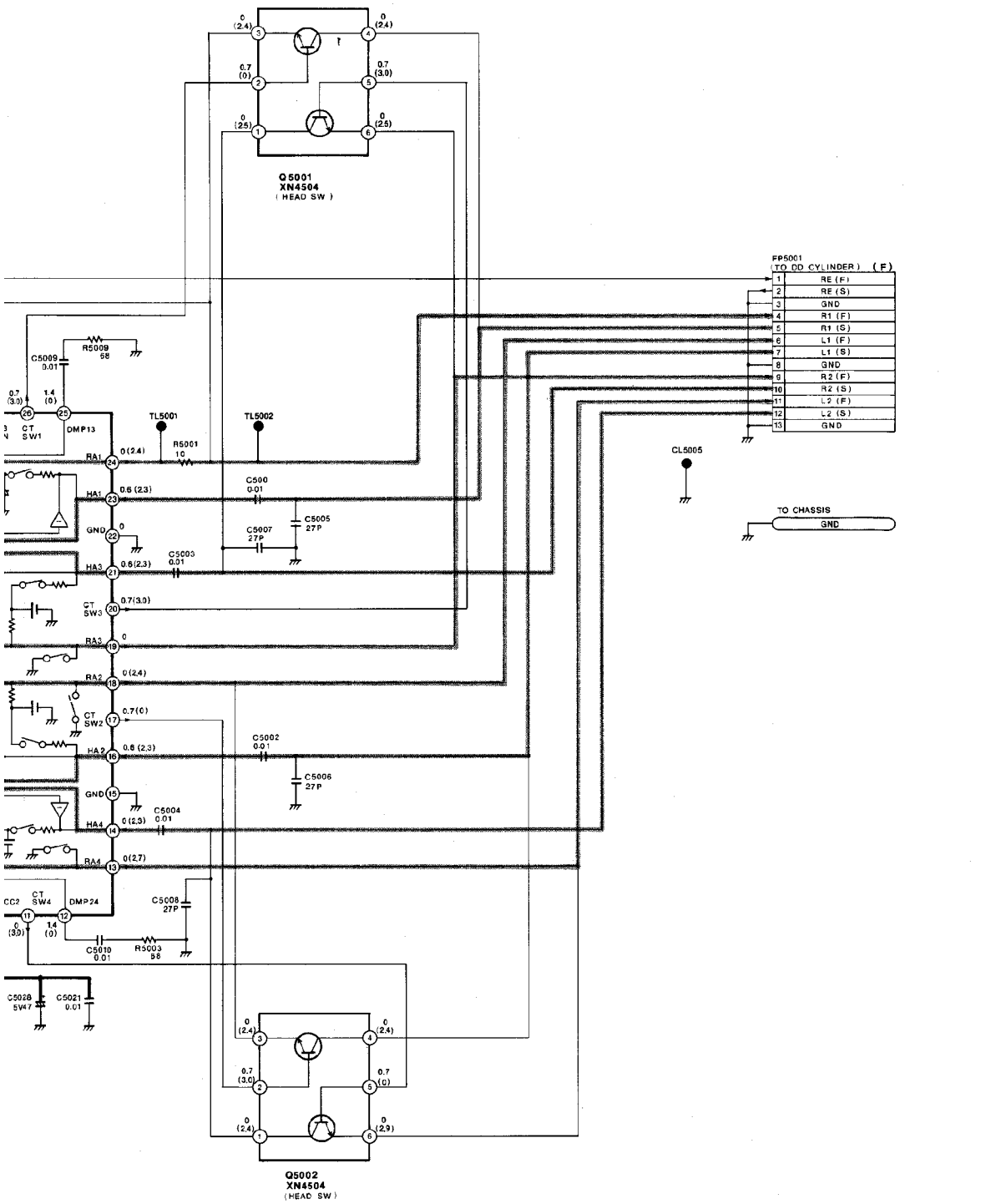

PLAYBACK MODE

10 11 12 13 14 15


MA
MA
IC5501
LC89970MD
IC5001
AN3355FHP
Q5003
2SA812
(ROTARY ERASE DRIVE)
Q3020
2SB1462
(BUFFER)
Q3021
2SB1462
(BUFFER)
Q3022
2SC4627
(AMP)
IC5001-8 REC/PLAY
2.8Vp-p (10msec./div.)
COLOUR BAR
D5001
MA729
15
16
17
18
19
20
21

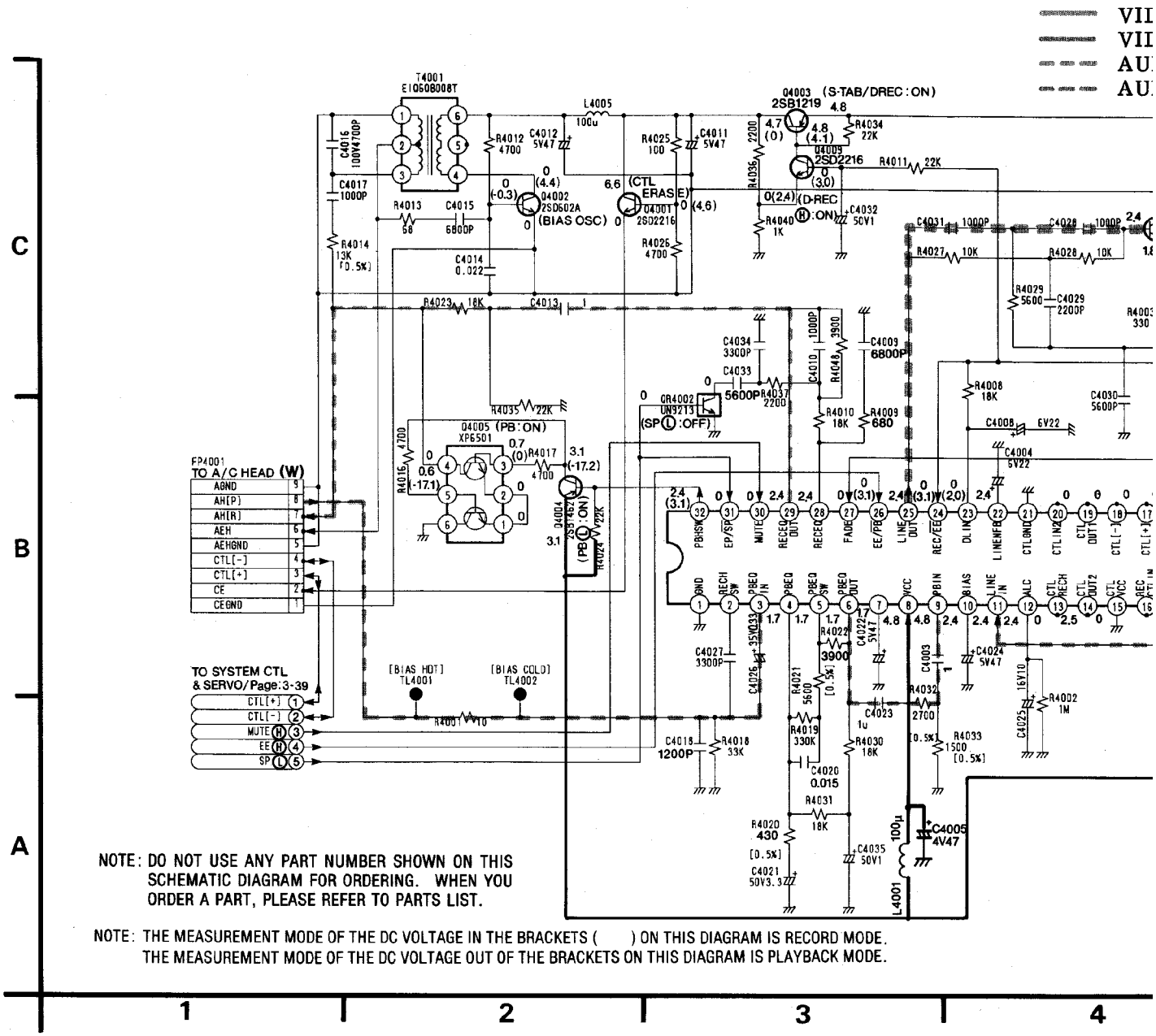
MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE



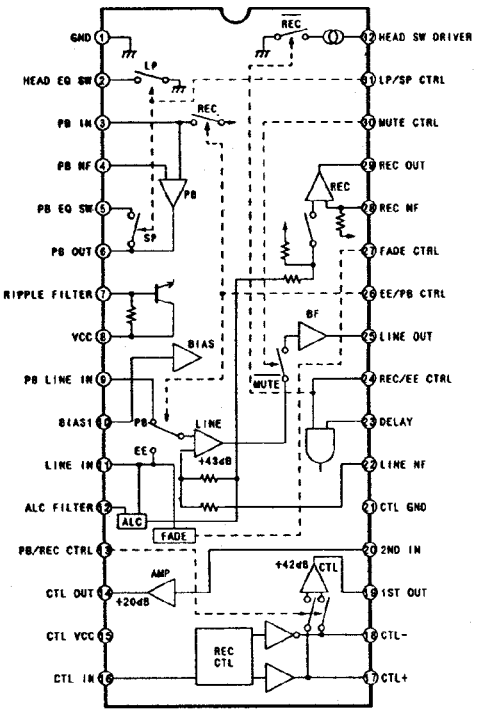

21 22 23 24 25

# 3-17. AUDIO SCHEMATIC DIAGRAM

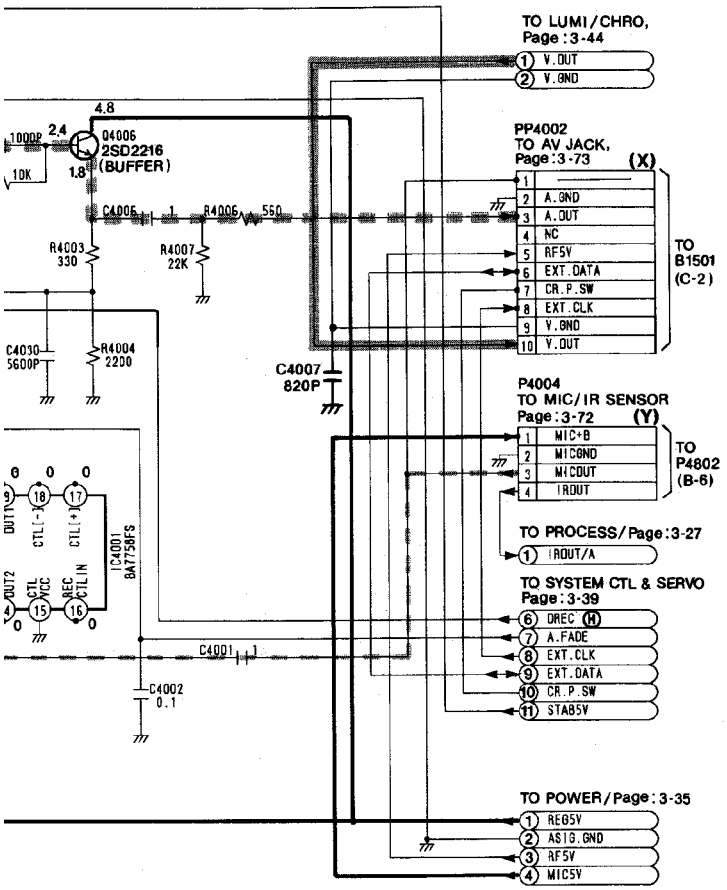


# IC BLOCK

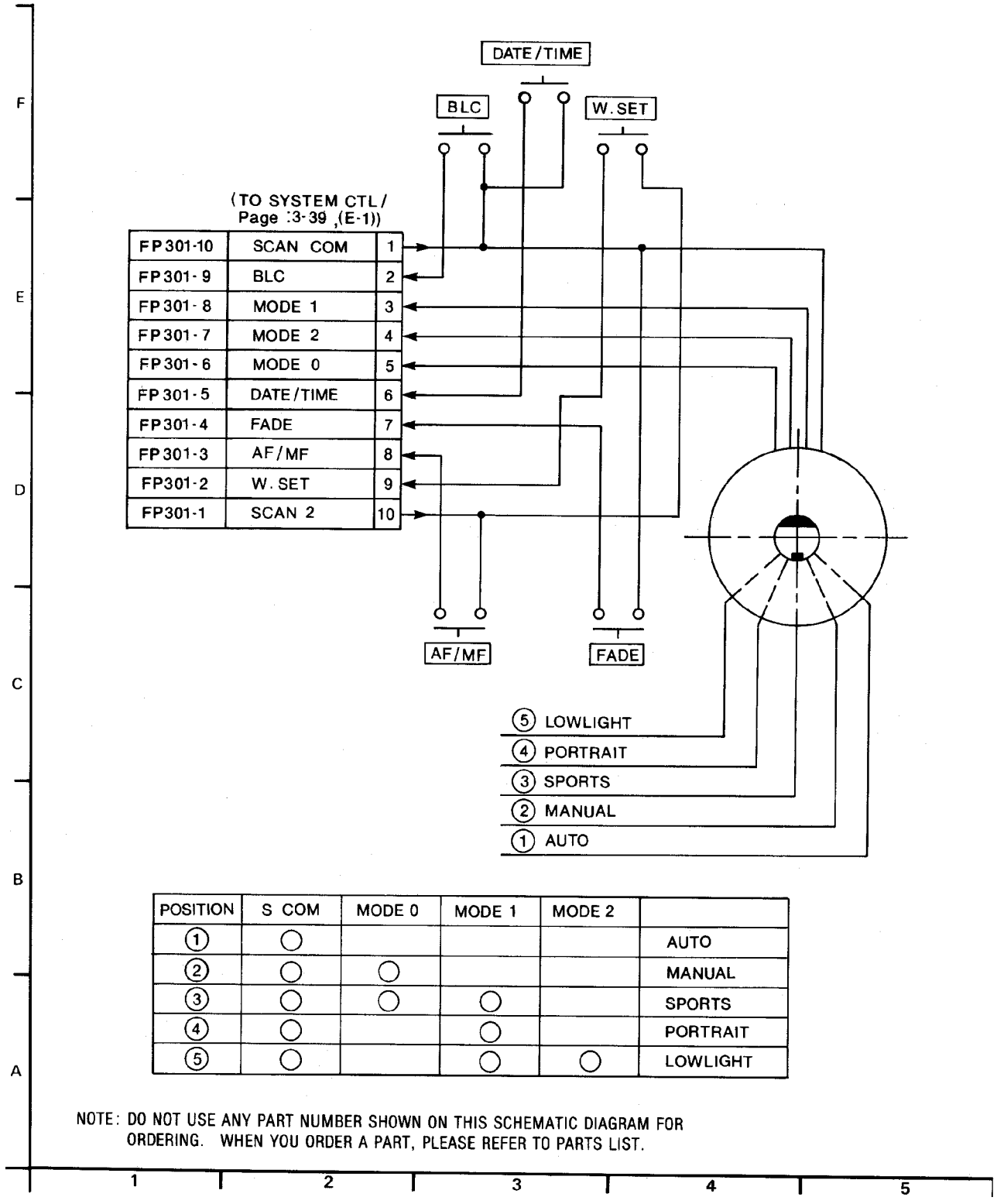
## IC4001 (BA7758FS)
## (LOCATION: B-4)




- VIDEO MAIN SIGNAL PATH IN REC MODE
- VIDEO MAIN SIGNAL PATH IN PLAY BACK MODE
- AUDIO MAIN SIGNAL PATH IN REC MODE
- AUDIO MAIN SIGNAL PATH IN PLAY BACK MODE



# 3-18. CAMERA OPERATION SCHEMATIC DIAGRAM




| POSITION | S COM | MODE 0 | MODE 1 | MODE 2 | |
|---|---|---|---|---|---|
| ① | ○ | | | | AUTO |
| ② | ○ | ○ | | | MANUAL |
| ③ | ○ | ○ | ○ | | SPORTS |
| ④ | ○ | | ○ | | PORTRAIT |
| ⑤ | ○ | | ○ | ○ | LOWLIGHT |

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

**Integrated Circuit**

| | |
|---|---|
| IC201 | E-2 |
| IC202 | E-17 |
| IC203 | F-2 |
| IC204 | F-16 |
| IC205 | E-18 |
| IC207 | E-18 |
| IC208 | F-18 |
| IC209 | E-17 |
| IC211 | E-18 |
| IC302 | E-4 |
| IC303 | F-13 |
| IC305 | D-15 |
| IC306 | E-6 |
| IC307 | D-16 |
| IC308 | D-3 |
| IC309 | D-14 |
| IC310 | D-5 |
| IC315 | D-13 |
| IC705 | D-17 |
| IC706 | D-2 |
| IC707 | D-17 |
| IC708 | D-1 |
| IC1001 | B-12 |
| IC3001 | B-5 |
| IC3002 | A-13 |
| IC4001 | B-17 |
| IC5001 | B-4 |
| IC5501 | C-14 |
| IC6001 | E-11 |
| IC6002 | E-8 |
| IC6003 | D-8 |
| IC6004 | E-7 |
| IC6005 | F-8 |
| IC6006 | F-7 |
| IC6007 | F-7 |
| IC6008 | E-7 |
| IC6009 | C-11 |

**Transistor**

| | |
|---|---|
| Q201 | D-3 |
| Q204 | F-17 |
| Q206 | F-3 |
| Q207 | E-3 |
| Q208 | F-3 |
| Q209 | F-18 |
| Q210 | F-17 |
| Q211 | F-17 |
| Q301 | D-13 |
| Q302 | D-13 |
| Q303 | C-3 |
| Q304 | F-3 |
| Q704 | D-2 |
| Q705 | C-2 |
| Q1001 | C-11 |
| Q1002 | C-12 |
| Q1003 | A-11 |
| Q1004 | A-11 |
| Q1005 | C-12 |
| Q1006 | C-11 |
| Q1062 | B-11 |
| Q3001 | C-15 |
| Q3002 | C-15 |
| Q3005 | C-4 |
| Q3006 | C-13 |
| Q3011 | A-15 |
| Q3012 | B-15 |
| Q3013 | B-15 |
| Q3020 | B-14 |
| Q3021 | B-14 |
| Q3022 | B-14 |
| Q3204 | C-15 |
| Q4001 | C-17 |
| Q4002 | C-18 |
| Q4003 | C-17 |
| Q4004 | C-18 |
| Q4005 | B-1 |
| Q4006 | A-17 |
| Q4009 | C-17 |
| Q5001 | A-4 |
| Q5002 | A-3 |
| Q5003 | A-15 |
| Q5502 | C-16 |
| Q5503 | C-16 |
| Q5504 | C-6 |
| Q5505 | C-5 |
| Q5506 | B-14 |
| Q5510 | C-6 |
| Q5511 | C-7 |
| Q6002 | F-8 |
| Q6004 | F-7 |
| Q6005 | D-8 |
| Q6006 | D-10 |
| Q6044 | C-10 |
| Q6045 | C-10 |
| Q6201 | F-11 |
| Q6202 | F-9 |

**Transistor & Resistor**

| | |
|---|---|
| QR301 | D-4 |
| QR302 | D-4 |
| QR303 | D-15 |
| QR304 | C-15 |
| QR305 | D-15 |
| QR306 | F-6 |
| QR307 | D-14 |
| QR701 | D-17 |
| QR710 | C-17 |
| QR1006 | B-10 |
| QR1061 | C-11 |
| QR3001 | A-13 |
| QR3003 | A-14 |
| QR3004 | A-14 |
| QR3005 | C-13 |
| QR4002 | A-18 |
| QR5501 | C-14 |
| QR6001 | C-12 |
| QR6002 | E-8 |
| QR6003 | E-7 |
| QR6004 | E-7 |
| QR6007 | D-10 |
| QR6008 | D-8 |
| QR6009 | C-11 |
| QR6010 | D-8 |
| QR6012 | E-8 |
| QR6013 | D-8 |
| QR6014 | D-11 |
| QR6015 | D-9 |
| QR6018 | E-12 |

**Diode**

| | |
|---|---|
| D200 | E-2 |
| D201 | E-2 |
| D202 | F-17 |
| D203 | F-17 |
| D204 | D-2 |
| D206 | F-3 |
| D207 | F-18 |
| D208 | E-17 |
| D209 | F-17 |
| D210 | F-18 |
| D211 | E-17 |
| D212 | F-4 |
| D213 | D-3 |
| D214 | F-3 |
| D215 | E-17 |
| D301 | E-12 |
| D302 | E-16 |
| D303 | D-4 |
| D304 | D-4 |
| D305 | D-4 |
| D306 | F-5 |
| D307 | D-3 |
| D308 | E-16 |
| D309 | E-16 |
| D701 | C-17 |
| D1002 | B-11 |
| D1004 | B-11 |
| D1005 | B-12 |
| D1006 | B-12 |
| D1007 | B-12 |
| D1008 | C-12 |
| D1012 | A-7 |
| D1015 | B-11 |
| D1062 | B-11 |
| D1064 | B-11 |
| D5001 | B-16 |
| D5502 | C-5 |
| D6002 | E-8 |
| D6008 | E-8 |
| D6011 | D-7 |
| D6012 | C-7 |
| D6013 | E-10 |
| D6015 | D-11 |
| D6016 | D-8 |
| D6018 | C-8 |
| D6201 | F-11 |
| D6300 | E-8 |
| D6307 | C-9 |
| D6319 | C-9 |

**Transformer**

| | |
|---|---|
| T1001 | B-7 |
| T1002 | B-8 |
| T4001 | C-1 |

**Test Point**

| | |
|---|---|
| CL200 | E-17 |
| CL201 | E-16 |
| CL202 | F-16 |
| CL203 | F-16 |
| CL204 | F-16 |
| CL205 | D-17 |
| CL206 | D-17 |
| CL301 | F-16 |
| CL302 | D-14 |
| CL303 | E-14 |
| CL304 | E-14 |
| CL305 | E-15 |
| CL306 | D-16 |
| CL307 | C-16 |
| CL308 | D-16 |
| CL309 | F-15 |
| CL310 | D-16 |
| CL311 | E-14 |
| CL312 | C-14 |
| CL313 | E-14 |
| CL314 | D-16 |
| CL316 | D-16 |
| CL322 | E-14 |
| CL323 | E-13 |
| CL324 | E-13 |
| CL325 | E-14 |
| CL326 | E-13 |
| CL327 | E-13 |
| CL328 | E-13 |
| CL329 | E-13 |
| CL330 | E-13 |
| CL701 | C-17 |
| CL702 | C-17 |
| CL703 | D-18 |
| CL705 | D-17 |
| CL1003 | C-13 |
| CL1004 | C-13 |
| CL1005 | C-12 |
| CL1006 | C-12 |
| CL1007 | B-11 |
| CL1008 | A-11 |
| CL1009 | A-11 |
| CL1010 | B-11 |
| CL1011 | C-12 |
| CL1013 | C-12 |
| CL1014 | C-12 |
| CL3001 | A-14 |
| CL3002 | A-18 |
| CL3003 | A-15 |
| CL3004 | A-18 |
| CL3006 | C-16 |
| CL3007 | B-15 |
| CL3008 | C-15 |
| CL3009 | B-13 |
| CL3010 | A-15 |
| CL3012 | A-14 |
| CL3013 | A-14 |
| CL3016 | B-13 |
| CL3017 | B-13 |
| CL3018 | B-14 |
| CL3019 | A-15 |
| CL3020 | A-13 |
| CL3021 | B-15 |
| CL3022 | B-15 |
| CL3024 | B-14 |
| CL5001 | C-16 |
| CL5501 | B-13 |
| CL5503 | C-15 |
| CL5504 | C-15 |
| CL5507 | B-14 |
| CL5508 | B-13 |
| CL5509 | B-14 |
| CL5510 | B-13 |
| CL5512 | C-16 |
| CL5514 | B-15 |
| CL6001 | F-11 |
| CL6002 | D-11 |
| CL6005 | F-11 |
| CL6006 | D-11 |
| CL6007 | D-11 |
| CL6009 | F-12 |
| CL6010 | D-12 |
| CL6204 | D-12 |
| CL6206 | E-10 |
| CL6207 | F-10 |
| CL6208 | F-10 |
| CL6209 | E-10 |
| CL6210 | E-10 |
| CL6211 | E-10 |
| CL6212 | F-11 |
| CL6214 | D-10 |
| CL6215 | F-11 |
| CL6216 | F-11 |
| CL6217 | F-10 |
| CL6218 | F-12 |
| TL201 | D-17 |
| TL202 | E-18 |
| TL701 | D-17 |
| TL702 | D-16 |
| TL703 | D-16 |
| TL704 | C-17 |
| TL1001 | C-11 |
| TL3004 | A-14 |
| TL3005 | B-16 |
| TL4001 | C-17 |
| TL4002 | C-18 |
| TL5001 | B-15 |
| TL5002 | A-15 |
| TL5005 | A-16 |
| TL5501 | C-17 |
| TP5501 | F-2 |

**Adjustment**

| | |
|---|---|
| C201 | D-18 |
| VR3001 | B-14 |
| VR3003 | B-15 |

**Thermistor**

| | |
|---|---|
| TH701 | D-17 |

**Connector**

| | |
|---|---|
| FP301 | F-4 |
| FP302 | B-18 |
| FP701 | D-18 |
| FP4001 | C-18 |
| FP5001 | A-16 |
| FP6001 | F-11 |
| FP6002 | F-12 |
| FP6005 | E-9 |
| FP6006 | F-13 |
| P303 | F-15 |
| P4004 | B-1 |
| PP201 | F-2 |
| PP302 | E-16 |
| PP4002 | A-1 |
| PP6004 | D-12 |
| PS1001 | C-9 |

**Crystal Oscillator**

| | |
|---|---|
| X201 | E-1 |
| X301 | D-14 |
| X5501 | C-5 |
| X6001 | F-8 |
| X6002 | F-9 |

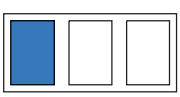
**Filter**

| | |
|---|---|
| FL201 | F-17 |
| FL3002 | C-15 |

**Coil**

| | |
|---|---|
| L201 | D-3 |
| L202 | E-3 |
| L203 | E-2 |
| L204 | E-3 |
| L205 | E-2 |
| L206 | E-16 |
| L208 | E-18 |
| L209 | E-17 |
| L210 | F-3 |
| L211 | F-16 |
| L215 | F-17 |
| L220 | D-17 |
| L230 | F-17 |
| L231 | F-17 |
| L301 | E-15 |
| L302 | D-7 |
| L303 | F-15 |
| L304 | F-16 |
| L305 | F-15 |
| L306 | D-7 |
| L307 | F-14 |
| L308 | F-14 |
| L309 | F-14 |
| L310 | D-4 |
| L311 | E-15 |
| L312 | F-15 |
| L314 | F-14 |
| L315 | D-14 |
| L316 | D-3 |
| L317 | D-16 |
| L318 | D-14 |
| L319 | E-16 |
| L320 | F-14 |
| L321 | E-4 |
| L322 | D-7 |
| L323 | D-6 |
| L324 | C-15 |
| L701 | D-16 |
| L703 | D-1 |
| L706 | D-16 |
| L707 | D-3 |
| L1001 | B-9 |
| L1002 | B-8 |
| L1003 | C-7 |
| L1006 | B-11 |
| L1007 | A-8 |
| L1008 | B-7 |
| L1009 | B-12 |
| L1010 | B-11 |
| L1011 | A-12 |
| L1012 | C-12 |
| L1013 | C-12 |
| L1014 | C-12 |
| L1015 | B-11 |
| L1062 | C-8 |
| L3001 | A-13 |
| L3002 | A-14 |
| L3003 | A-14 |
| L3005 | A-14 |
| L3006 | B-4 |
| L3011 | B-15 |
| L3012 | B-15 |
| L3013 | B-15 |
| L3014 | B-14 |
| L3015 | B-13 |
| L3016 | B-14 |
| L3021 | C-4 |
| L3022 | C-4 |
| L4001 | C-2 |
| L4005 | C-2 |
| L5002 | B-16 |
| L5003 | B-16 |
| L5005 | B-16 |
| L5006 | A-4 |
| L5007 | B-16 |
| L5501 | B-15 |
| L5502 | C-6 |

ADDRESS INFORMATION



## MAIN C.B.A.

| | |
|---|---|
| L5503 | C-6 |
| L5504 | C-5 |
| L5505 | C-5 |
| L5506 | C-5 |
| L5507 | C-13 |
| L5511 | C-3 |
| L6001 | D-11 |
| L6002 | C-11 |

**Capacitor**

| | |
|---|---|
| C202 | E-1 |
| C203 | D-17 |
| C204 | E-17 |
| C206 | E-18 |
| C207 | E-18 |
| C212 | F-2 |
| C213 | E-2 |
| C215 | D-17 |
| C216 | E-17 |
| C217 | D-17 |
| C218 | E-16 |
| C220 | E-2 |
| C221 | E-3 |
| C222 | F-18 |
| C225 | E-17 |
| C226 | E-3 |
| C227 | E-17 |
| C229 | E-18 |
| C232 | E-18 |
| C233 | E-3 |
| C234 | E-3 |
| C235 | E-18 |
| C236 | F-2 |
| C237 | F-17 |
| C238 | F-17 |
| C239 | F-3 |
| C240 | F-16 |
| C241 | E-3 |
| C242 | E-3 |
| C243 | E-16 |
| C244 | E-16 |
| C245 | F-3 |
| C246 | E-16 |
| C247 | E-16 |
| C249 | F-3 |
| C250 | F-3 |
| C251 | F-15 |
| C252 | F-3 |
| C253 | F-16 |
| C254 | F-3 |
| C255 | F-16 |
| C256 | F-16 |
| C257 | F-15 |
| C258 | E-3 |
| C262 | E-18 |
| C263 | F-18 |
| C264 | F-18 |
| C265 | F-18 |
| C266 | F-18 |
| C267 | F-18 |
| C270 | F-17 |
| C271 | E-17 |
| C272 | F-17 |
| C273 | F-17 |
| C274 | F-17 |
| C275 | F-18 |
| C276 | F-17 |
| C301 | F-16 |
| C302 | F-4 |
| C303 | F-15 |
| C304 | F-4 |
| C305 | E-15 |
| C306 | D-6 |
| C307 | E-4 |
| C308 | E-4 |
| C309 | E-4 |
| C310 | E-4 |
| C312 | F-5 |
| C314 | D-6 |
| C315 | E-6 |
| C316 | D-13 |
| C317 | D-13 |
| C318 | D-13 |
| C319 | E-14 |
| C320 | E-4 |
| C321 | F-15 |
| C323 | C-3 |
| C324 | D-6 |
| C325 | C-3 |
| C326 | E-15 |
| C327 | E-15 |
| C328 | D-6 |
| C329 | D-15 |
| C330 | D-5 |
| C331 | D-15 |
| C332 | D-4 |
| C333 | D-6 |
| C334 | D-4 |
| C335 | D-4 |
| C336 | D-13 |
| C337 | F-6 |
| C338 | F-14 |
| C340 | D-4 |
| C341 | D-4 |
| C342 | C-14 |
| C344 | D-4 |
| C345 | D-3 |
| C346 | D-16 |
| C353 | D-4 |
| C371 | D-5 |
| C701 | C-17 |
| C702 | C-17 |
| C703 | D-17 |
| C710 | D-2 |
| C711 | D-17 |
| C719 | D-2 |
| C720 | D-2 |
| C721 | D-3 |
| C722 | D-3 |
| C724 | C-17 |
| C725 | C-17 |
| C729 | D-1 |
| C730 | D-17 |
| C731 | D-17 |
| C732 | D-1 |
| C737 | C-2 |
| C750 | D-17 |
| C1001 | B-11 |
| C1002 | B-9 |
| C1003 | B-7 |
| C1004 | B-13 |
| C1005 | C-12 |
| C1006 | C-12 |
| C1007 | C-9 |
| C1008 | A-8 |
| C1009 | A-12 |
| C1010 | A-12 |
| C1011 | A-12 |
| C1012 | A-11 |
| C1013 | B-7 |
| C1014 | B-12 |
| C1015 | C-7 |
| C1016 | C-8 |
| C1017 | B-11 |
| C1019 | B-11 |
| C1020 | B-11 |
| C1022 | A-12 |
| C1024 | B-13 |
| C1025 | C-13 |
| C1026 | B-6 |
| C1027 | B-7 |
| C1028 | B-6 |
| C1029 | B-13 |
| C1030 | B-13 |
| C1031 | B-12 |
| C1032 | B-12 |
| C1033 | B-12 |
| C1034 | B-12 |
| C1035 | A-12 |
| C1036 | A-13 |
| C1037 | A-13 |
| C1040 | B-10 |
| C1041 | C-11 |
| C1042 | C-12 |
| C1043 | C-12 |
| C1044 | C-7 |
| C1045 | C-12 |
| C1051 | B-13 |
| C1057 | C-12 |
| C1058 | C-12 |
| C1063 | B-8 |
| C1064 | C-8 |
| C1066 | C-8 |
| C3001 | A-6 |
| C3002 | A-6 |
| C3003 | A-13 |
| C3005 | A-13 |
| C3006 | A-15 |
| C3007 | A-14 |
| C3008 | A-15 |
| C3011 | B-4 |
| C3012 | B-4 |
| C3015 | B-15 |
| C3022 | B-15 |
| C3023 | B-15 |
| C3024 | B-15 |
| C3027 | B-15 |
| C3028 | C-4 |
| C3030 | B-4 |
| C3031 | C-4 |
| C3032 | C-4 |
| C3033 | C-4 |
| C3035 | B-13 |
| C3037 | A-13 |
| C3040 | B-14 |
| C3041 | B-14 |
| C3042 | B-14 |
| C3043 | B-14 |
| C4001 | B-2 |
| C4002 | A-2 |
| C4003 | B-17 |
| C4004 | A-2 |
| C4005 | B-2 |
| C4006 | A-1 |
| C4007 | A-18 |
| C4008 | A-2 |
| C4009 | A-17 |
| C4010 | B-18 |
| C4011 | C-2 |
| C4012 | C-2 |
| C4013 | B-1 |
| C4014 | C-2 |
| C4015 | C-1 |
| C4016 | C-1 |
| C4017 | C-1 |
| C4018 | B-2 |
| C4020 | B-17 |
| C4021 | B-2 |
| C4022 | B-2 |
| C4023 | B-17 |
| C4024 | B-2 |
| C4025 | A-2 |
| C4026 | B-2 |
| C4027 | B-2 |
| C4028 | A-17 |
| C4029 | A-17 |
| C4030 | A-17 |
| C4031 | A-17 |
| C4032 | B-2 |
| C4033 | A-18 |
| C4034 | A-18 |
| C4035 | B-2 |
| C5001 | B-4 |
| C5002 | B-3 |
| C5003 | B-4 |
| C5004 | B-3 |
| C5005 | A-4 |
| C5006 | A-3 |
| C5007 | A-4 |
| C5008 | A-3 |
| C5009 | B-4 |
| C5010 | B-3 |
| C5011 | A-3 |
| C5016 | B-16 |
| C5018 | B-16 |
| C5021 | B-3 |
| C5022 | A-4 |
| C5023 | B-3 |
| C5024 | B-3 |
| C5026 | B-15 |
| C5027 | B-16 |
| C5028 | B-2 |
| C5501 | C-6 |
| C5502 | C-6 |
| C5503 | B-14 |
| C5504 | B-14 |
| C5505 | C-14 |
| C5507 | B-6 |
| C5508 | B-6 |
| C5510 | C-4 |
| C5511 | C-4 |
| C5512 | B-3 |
| C5513 | C-16 |
| C5514 | C-16 |
| C5515 | C-16 |
| C5520 | C-6 |
| C5521 | C-6 |
| C5522 | C-6 |
| C5523 | C-6 |
| C5524 | C-6 |
| C5525 | C-6 |
| C5526 | C-5 |
| C5527 | C-5 |
| C5530 | C-13 |
| C5531 | C-13 |
| C5532 | C-14 |
| C5533 | C-14 |
| C5534 | B-13 |
| C5535 | B-13 |
| C5536 | B-14 |
| C5537 | B-14 |
| C5538 | C-14 |
| C5539 | C-14 |
| C5541 | B-14 |
| C5542 | B-14 |
| C6001 | F-8 |
| C6002 | F-8 |
| C6003 | F-9 |
| C6004 | F-12 |
| C6005 | E-12 |
| C6006 | F-12 |
| C6007 | F-12 |
| C6008 | F-12 |
| C6010 | F-8 |
| C6011 | E-8 |
| C6014 | D-10 |
| C6015 | D-10 |
| C6017 | D-10 |
| C6018 | D-10 |
| C6020 | C-8 |
| C6022 | C-8 |
| C6023 | C-8 |
| C6024 | F-10 |
| C6025 | E-11 |
| C6027 | F-7 |
| C6030 | F-9 |
| C6031 | E-7 |
| C6032 | F-8 |
| C6038 | F-12 |
| C6039 | E-8 |
| C6040 | D-8 |
| C6060 | E-12 |
| C6065 | C-9 |
| C6100 | D-7 |
| C6201 | F-10 |
| C6203 | F-9 |
| C6204 | E-10 |
| C6205 | E-10 |
| C6206 | E-10 |
| C6207 | E-9 |
| C6208 | E-9 |
| C6209 | E-9 |
| C6210 | D-10 |
| C6211 | E-10 |
| C6213 | E-9 |
| C6214 | E-8 |
| C6217 | E-9 |
| C6221 | D-9 |
| C6230 | E-9 |
| C6297 | F-9 |
| C6298 | F-9 |
| C6299 | E-10 |

**Resistor**

| | |
|---|---|
| R200 | F-18 |
| R201 | E-18 |
| R202 | E-18 |
| R203 | E-18 |
| R204 | E-18 |
| R205 | F-2 |
| R207 | E-18 |
| R208 | E-3 |
| R209 | E-16 |
| R210 | E-16 |
| R211 | D-16 |
| R213 | E-3 |
| R214 | F-4 |
| R215 | D-2 |
| R216 | D-2 |
| R218 | E-18 |
| R219 | E-3 |
| R220 | F-3 |
| R223 | D-3 |
| R224 | E-3 |
| R226 | E-18 |
| R227 | E-18 |
| R228 | E-18 |
| R229 | F-2 |
| R231 | E-18 |
| R232 | E-2 |
| R233 | F-2 |
| R236 | E-17 |
| R237 | F-17 |
| R238 | F-17 |
| R239 | F-17 |
| R241 | F-4 |
| R242 | E-3 |
| R243 | F-3 |
| R244 | F-3 |
| R245 | F-3 |
| R246 | F-3 |
| R247 | F-3 |
| R249 | F-3 |
| R250 | F-3 |
| R251 | F-16 |
| R252 | F-3 |
| R253 | F-3 |
| R254 | E-2 |
| R255 | E-3 |
| R256 | E-3 |
| R257 | F-3 |
| R258 | F-16 |
| R260 | E-16 |
| R261 | D-17 |
| R262 | D-3 |
| R263 | E-17 |
| R264 | E-17 |
| R265 | F-2 |
| R266 | F-2 |
| R267 | F-18 |
| R268 | E-18 |
| R269 | F-18 |
| R270 | F-18 |
| R271 | E-3 |
| R272 | F-18 |
| R273 | F-18 |
| R274 | – |
| R275 | F-17 |
| R276 | F-14 |
| R277 | F-14 |
| R278 | F-18 |
| R279 | D-2 |
| R282 | D-3 |
| R285 | E-17 |
| R286 | E-17 |
| R287 | F-17 |
| R288 | F-17 |
| R290 | E-17 |
| R291 | E-18 |
| R292 | F-17 |
| R293 | F-17 |
| R298 | F-3 |
| R299 | F-3 |
| R301 | E-16 |
| R302 | E-14 |
| R304 | |
| R305 | |
| R306 | |
| R307 | |
| R308 | |
| R309 | |
| R310 | |
| R311 | |
| R312 | |
| R313 | |
| R314 | |
| R315 | |
| R316 | |
| R317 | |
| R318 | |
| R319 | |
| R320 | |
| R321 | |
| R322 | |
| R323 | |
| R324 | |
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| R326 | |
| R327 | |
| R328 | |
| R329 | |
| R330 | |
| R331 | |
| R332 | |
| R333 | |
| R334 | |
| R335 | |
| R336 | |
| R337 | |
| R338 | |
| R339 | |
| R340 | |
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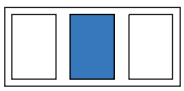
| R364 | |
| R365 | |
| R366 | |
| R369 | |
| R370 | |
| R371 | |
| R372 | |
| R373 | |
| R374 | |
| R702 | |
| R703 | |
| R704 | |
| R705 | |
| R716 | |
| R717 | |
| R718 | |
| R719 | |
| R720 | |
| R721 | |
| R722 | |
| R723 | |
| R724 | |
| R725 | |



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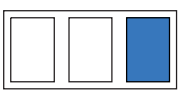
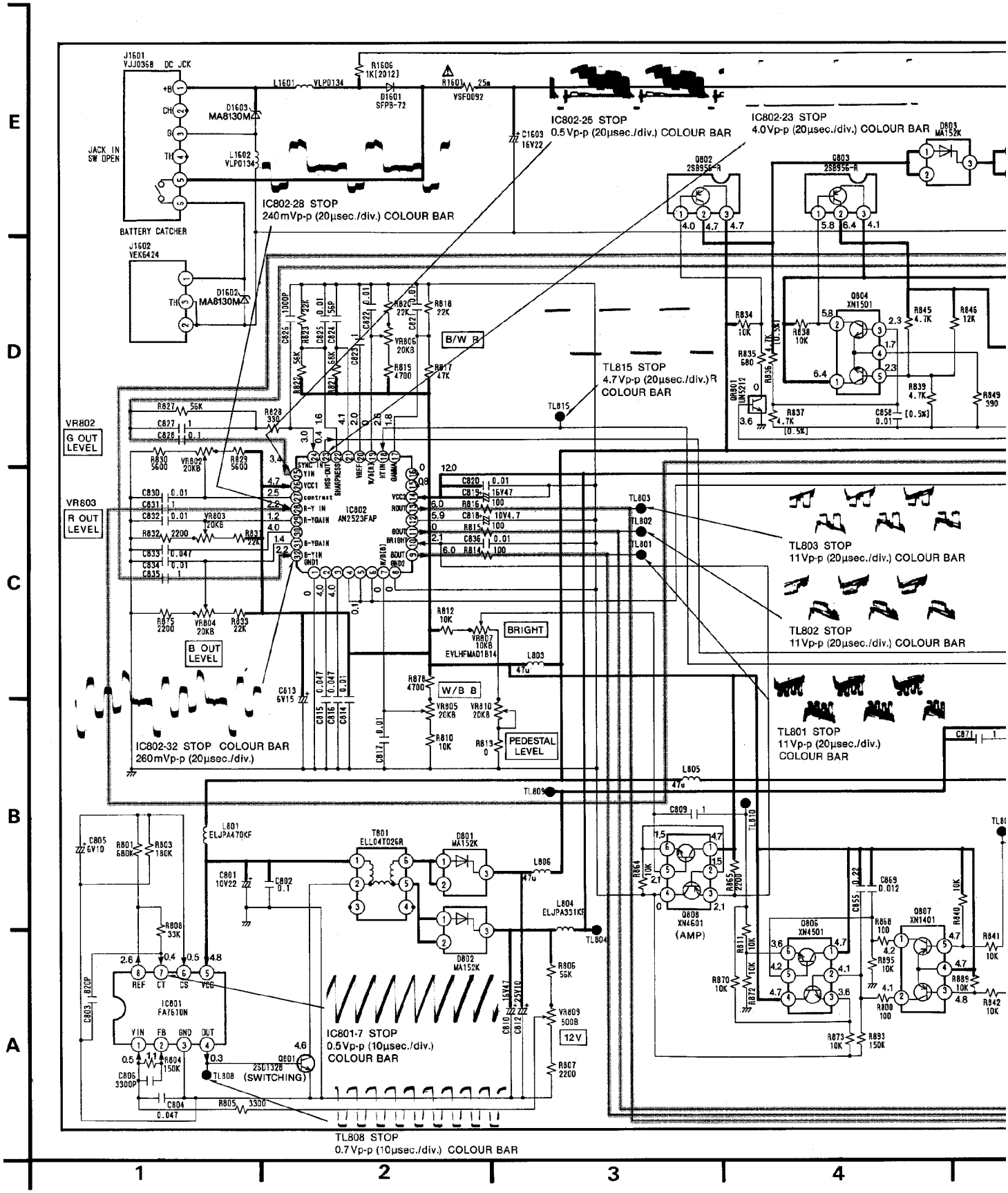
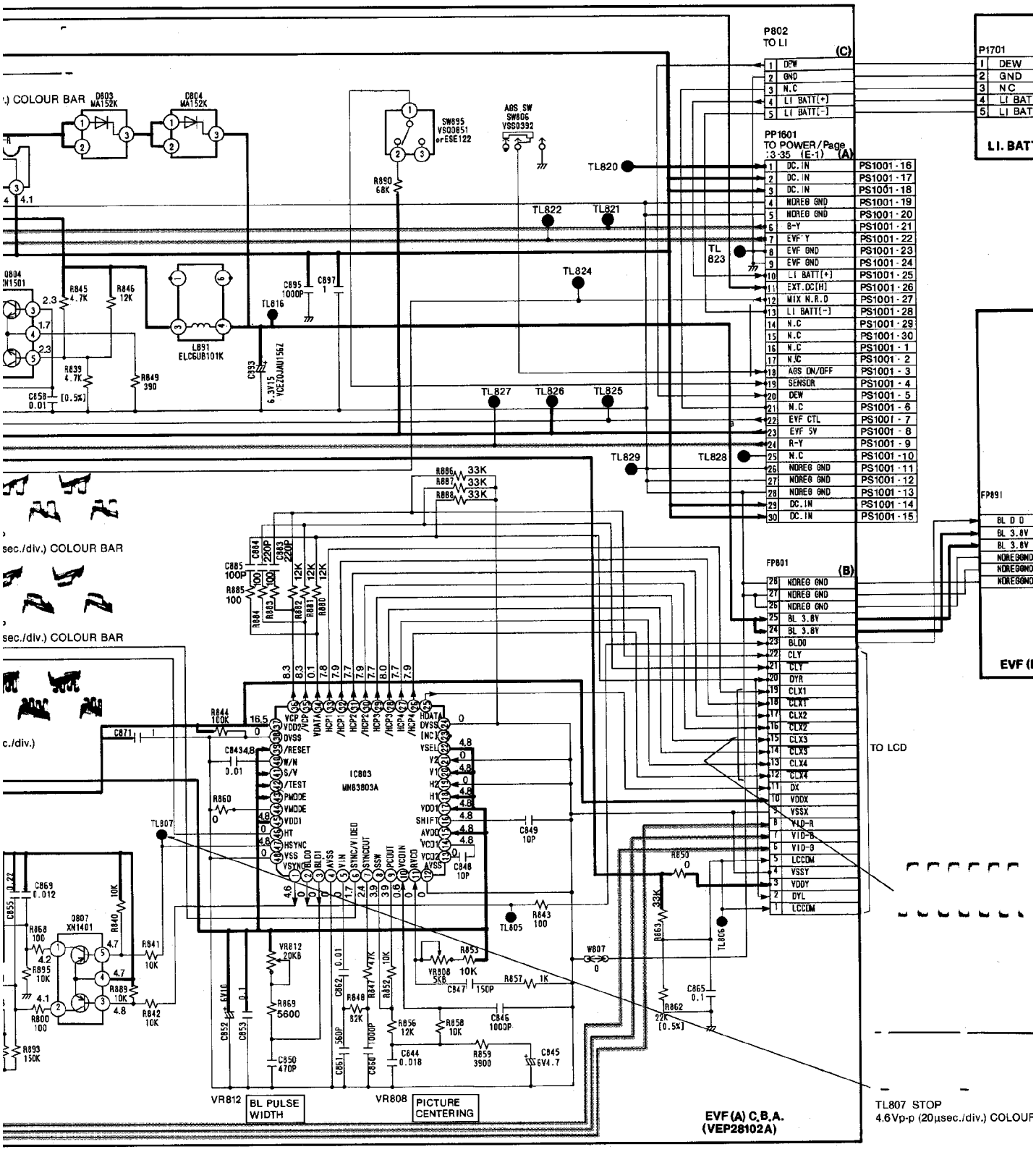
|---|---|---|---|---|---|---|---|---|---|---|
| D-5 | R726 | C-2 | R3005 | A-14 | R5002 | B-3 | R6027 | F-6 | R6212 | E-10 |
| F-5 | R727 | C-2 | R3007 | A-14 | R5003 | A-3 | R6028 | F-6 | R6213 | E-10 |
| D-14 | R728 | C-2 | R3008 | A-14 | R5004 | B-3 | R6029 | D-11 | R6214 | D-11 |
| E-14 | R729 | C-2 | R3009 | A-14 | R5005 | B-15 | R6030 | F-6 | R6215 | E-8 |
| E-4 | R730 | C-2 | R3010 | A-15 | R5006 | B-16 | R6031 | D-10 | R6231 | F-12 |
| E-4 | R731 | C-2 | R3015 | B-4 | R5007 | A-4 | R6032 | C-8 | R6235 | F-9 |
| E-4 | R732 | C-2 | R3016 | B-4 | R5008 | A-4 | R6033 | D-8 | R6299 | F-10 |
| E-4 | R733 | C-2 | R3017 | B-4 | R5009 | A-4 | R6034 | D-7 | R6309 | E-8 |
| D-6 | R734 | C-3 | R3018 | B-4 | R5010 | B-15 | R6035 | E-8 | R6310 | F-8 |
| D-13 | R735 | C-3 | R3019 | B-4 | R5011 | B-15 | R6037 | D-8 | R6311 | F-8 |
| D-14 | R736 | C-3 | R3021 | A-4 | R5013 | B-3 | R6038 | E-9 | R6318 | C-9 |
| D-14 | R737 | C-2 | R3022 | A-4 | R5014 | B-3 | R6039 | F-12 | R6333 | C-10 |
| D-14 | R738 | C-2 | R3023 | B-15 | R5015 | B-16 | R6040 | E-8 | R6334 | C-10 |
| E-4 | R739 | C-2 | R3024 | A-15 | R5501 | C-5 | R6042 | D-11 | R6342 | C-10 |
| F-13 | R740 | C-2 | R3025 | A-15 | R5502 | C-5 | R6043 | D-8 | R6343 | C-10 |
| F-13 | R741 | C-16 | R3026 | B-15 | R5503 | C-6 | R6044 | D-10 | R6344 | C-10 |
| D-13 | R742 | C-17 | R3027 | B-15 | R5504 | C-14 | R6045 | D-10 | R6345 | C-10 |
| D-15 | R743 | C-16 | R3028 | B-14 | R5505 | B-14 | R6046 | C-11 | R6346 | C-10 |
| D-15 | R744 | C-17 | R3029 | B-15 | R5507 | B-15 | R6048 | F-11 | R6347 | C-10 |
| D-15 | R745 | C-16 | R3032 | B-14 | R5510 | C-16 | R6049 | F-11 | R6348 | C-10 |
| F-13 | R746 | C-17 | R3035 | B-14 | R5511 | C-16 | R6050 | E-8 | **Resistor Array** | |
| C-17 | R747 | C-17 | R3036 | B-14 | R5512 | C-16 | R6053 | F-10 | | |
| D-4 | R748 | C-17 | R3037 | B-14 | R5513 | C-16 | R6054 | E-8 | RA301 | E-5 |
| C-3 | R749 | C-17 | R3038 | B-14 | R5514 | C-16 | R6055 | E-12 | RA302 | E-5 |
| C-3 | R750 | D-17 | R3040 | B-14 | R5515 | C-16 | R6056 | E-7 | RA303 | E-4 |
| D-4 | R752 | D-17 | R3050 | B-14 | R5516 | C-16 | R6057 | E-8 | RA304 | E-4 |
| D-5 | R756 | D-1 | R3058 | C-15 | R5517 | B-16 | R6060 | C-8 | RA305 | D-14 |
| D-6 | R757 | D-16 | R3059 | C-15 | R5518 | C-15 | R6061 | E-8 | RA306 | D-14 |
| C-13 | R758 | D-17 | R3060 | C-4 | R5520 | C-3 | R6063 | F-10 | RA308 | F-13 |
| D-4 | R760 | D-2 | R3062 | C-4 | R5521 | C-3 | R6064 | F-8 | RA309 | E-13 |
| E-15 | R761 | D-2 | R3063 | C-4 | R5526 | C-6 | R6065 | F-9 | RA310 | E-13 |
| E-15 | R764 | C-2 | R3064 | C-4 | R5527 | B-6 | R6066 | F-10 | RA311 | E-13 |
| D-13 | R777 | C-18 | R3071 | B-6 | R5528 | B-13 | R6070 | D-7 | RA312 | E-14 |
| D-4 | R778 | C-18 | R3072 | B-6 | R5529 | B-6 | R6071 | D-7 | RA314 | F-5 |
| E-4 | R779 | C-18 | R3073 | C-13 | R5530 | C-6 | R6073 | D-7 | RA315 | F-5 |
| D-4 | R781 | C-16 | R3074 | C-13 | R5531 | C-6 | R6074 | D-8 | RA320 | E-6 |
| C-15 | R782 | C-17 | R3081 | A-14 | R5532 | C-5 | R6075 | D-8 | RA321 | E-6 |
| C-15 | R1001 | B-12 | R3082 | A-13 | R5533 | C-5 | R6076 | D-8 | RA322 | E-7 |
| C-15 | R1002 | B-12 | R3086 | B-13 | R5534 | C-5 | R6077 | D-10 | RA323 | E-7 |
| F-5 | R1003 | C-12 | R3090 | D-12 | R5537 | B-13 | R6078 | C-10 | RA324 | E-7 |
| F-5 | R1004 | C-12 | R3238 | C-14 | R5540 | C-14 | R6081 | D-8 | RA325 | E-7 |
| F-5 | R1005 | A-12 | R3240 | C-14 | R5541 | C-14 | R6090 | D-7 | RA326 | F-7 |
| F-5 | R1006 | A-12 | R3241 | C-14 | R5543 | C-13 | R6091 | F-7 | RA327 | F-7 |
| D-6 | R1007 | A-11 | R3242 | C-14 | R5544 | B-14 | R6108 | D-11 | RA328 | E-5 |
| C-14 | R1008 | B-12 | R3243 | C-15 | R5546 | B-14 | R6111 | D-8 | RA329 | D-5 |
| D-13 | R1009 | B-12 | R4001 | C-18 | R5547 | B-14 | R6112 | D-8 | RA330 | D-5 |
| D-4 | R1010 | C-12 | R4002 | B-17 | R5548 | B-13 | R6113 | D-8 | RA331 | D-5 |
| D-4 | R1012 | B-13 | R4003 | A-17 | R5549 | B-13 | R6120 | D-10 | RA6001 | D-12 |
| D-4 | R1013 | B-13 | R4004 | A-17 | R5550 | B-13 | R6121 | D-10 | RA6003 | D-12 |
| D-13 | R1014 | B-13 | R4006 | A-18 | R5551 | B-14 | R6130 | F-12 | RA6004 | D-11 |
| D-13 | R1015 | B-13 | R4007 | A-18 | R5552 | C-4 | R6131 | C-9 | RA6005 | D-11 |
| D-13 | R1016 | B-13 | R4008 | B-17 | R5553 | C-4 | R6133 | F-11 | RA6006 | D-11 |
| D-13 | R1017 | B-13 | R4009 | A-17 | R5554 | B-14 | R6134 | D-7 | RA6007 | D-11 |
| C-13 | R1018 | B-13 | R4010 | A-18 | R5556 | B-13 | R6135 | D-7 | RA6008 | D-8 |
| C-13 | R1019 | B-13 | R4011 | B-17 | R5560 | C-7 | R6136 | D-12 | RA6009 | D-11 |
| F-14 | R1020 | B-12 | R4012 | C-17 | R5561 | C-6 | R6137 | D-12 | RA6010 | D-8 |
| F-14 | R1021 | B-12 | R4013 | C-1 | R5562 | B-6 | R6138 | D-11 | RA6011 | D-12 |
| F-14 | R1022 | B-12 | R4014 | C-1 | R5563 | B-6 | R6139 | E-10 | **Wire** | |
| F-14 | R1023 | A-12 | R4016 | B-2 | R5565 | B-6 | R6142 | D-10 | | |
| D-4 | R1024 | B-13 | R4017 | C-2 | R6002 | D-11 | R6143 | D-10 | W204 | E-18 |
| D-7 | R1025 | B-13 | R4018 | B-1 | R6003 | D-8 | R6144 | D-10 | W205 | E-18 |
| E-16 | R1026 | C-12 | R4019 | B-17 | R6004 | D-8 | R6145 | D-10 | W210 | E-16 |
| D-6 | R1027 | C-12 | R4020 | B-2 | R6005 | D-8 | R6149 | C-9 | W215 | E-17 |
| F-4 | R1028 | C-11 | R4021 | B-17 | R6006 | E-8 | R6150 | D-8 | W302 | F-5 |
| F-4 | R1029 | C-11 | R4022 | B-17 | R6007 | E-12 | R6151 | F-8 | W303 | C-14 |
| D-13 | R1033 | B-10 | R4023 | B-1 | R6008 | E-12 | R6152 | F-9 | W306 | C-13 |
| C-14 | R1035 | B-12 | R4024 | C-18 | R6009 | E-8 | R6153 | F-8 | W310 | D-13 |
| C-14 | R1038 | B-12 | R4025 | C-17 | R6010 | D-12 | R6154 | E-12 | W311 | F-14 |
| E-15 | R1039 | A-12 | R4026 | C-17 | R6011 | F-12 | R6155 | E-10 | W312 | F-15 |
| C-18 | R1040 | B-12 | R4027 | A-17 | R6012 | F-12 | R6160 | D-11 | W314 | D-13 |
| C-17 | R1051 | C-13 | R4028 | A-17 | R6013 | F-7 | R6161 | E-8 | W317 | F-15 |
| C-17 | R1052 | C-13 | R4029 | A-17 | R6014 | F-7 | R6168 | F-10 | W702 | D-2 |
| C-17 | R1062 | C-8 | R4030 | B-2 | R6015 | F-7 | R6170 | E-12 | W703 | D-17 |
| D-2 | R1063 | C-10 | R4031 | B-2 | R6016 | F-7 | R6199 | E-8 | W6001 | F-7 |
| D-2 | R1065 | B-11 | R4032 | B-17 | R6017 | F-7 | R6201 | F-11 | | |
| D-2 | R1071 | B-12 | R4033 | B-17 | R6018 | F-7 | R6203 | D-11 | | |
| C-2 | R1072 | B-12 | R4034 | C-17 | R6019 | F-7 | R6205 | F-11 | | |
| D-2 | R1073 | B-12 | R4035 | B-1 | R6020 | F-7 | R6206 | E-9 | | |
| D-2 | R1080 | C-9 | R4036 | C-17 | R6021 | F-8 | R6207 | F-10 | | |
| D-3 | R3001 | A-14 | R4037 | A-18 | R6022 | F-8 | R6208 | E-8 | | |
| D-3 | R3002 | A-6 | R4040 | B-17 | R6024 | F-10 | R6209 | E-8 | | |
| C-2 | R3003 | A-6 | R4048 | B-18 | R6025 | F-10 | R6210 | E-10 | | |
| C-2 | R3004 | A-14 | R5001 | B-15 | R6026 | F-7 | R6211 | E-10 | | |



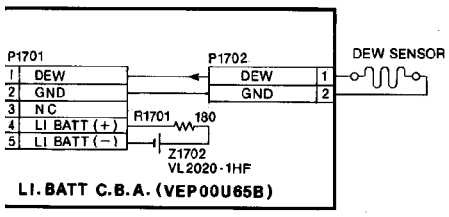
# 3-20. EVF (A)/EVF (B) & LI BATTERY SCHEMATIC DIAGRAM



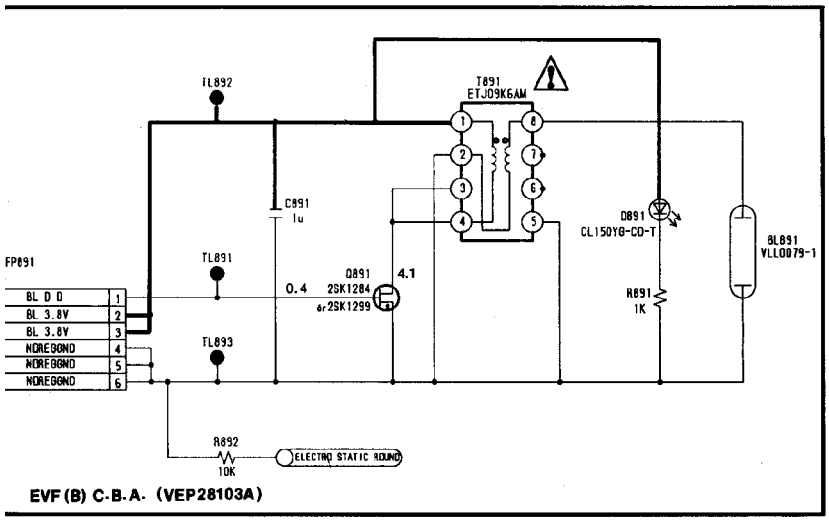
## MAIN SIGNAL PATH




5 6 7 8



LI. BATT C.B.A. (VEP00U65B)



EVF (B) C.B.A. (VEP28103A)

FP801-12~19 STOP
(CKB12~CKB19)
17Vp-p (20μsec./div.) COLOUR BAR

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

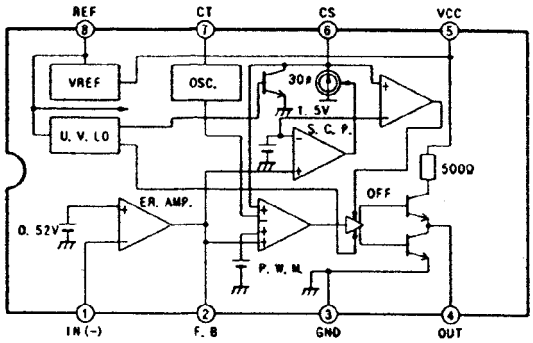
**IMPORTANT SAFETY NOTICE:**
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

COLOUR BAR

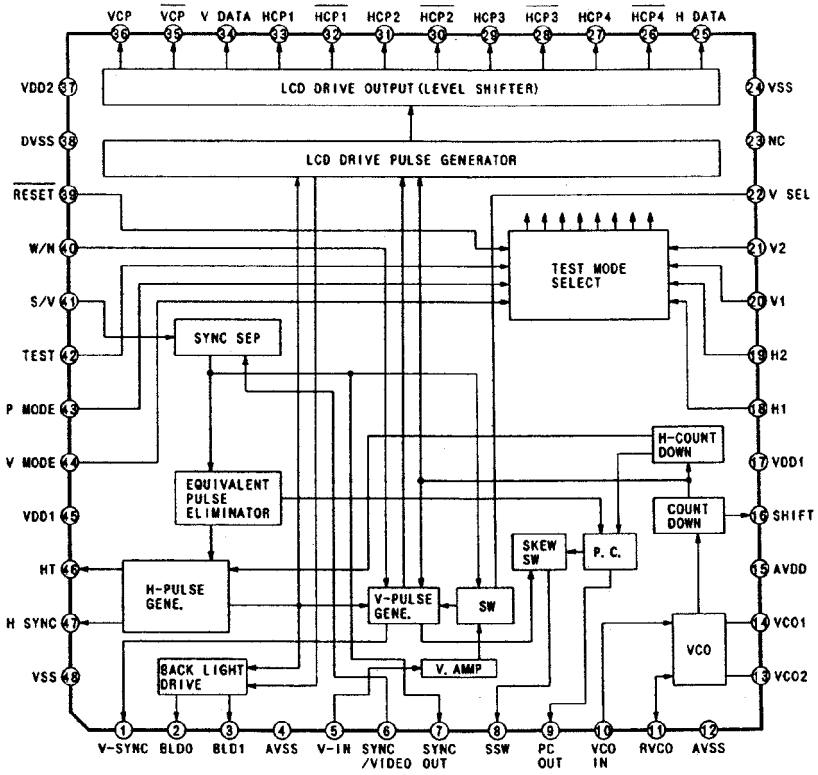
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

# IC BLOCK

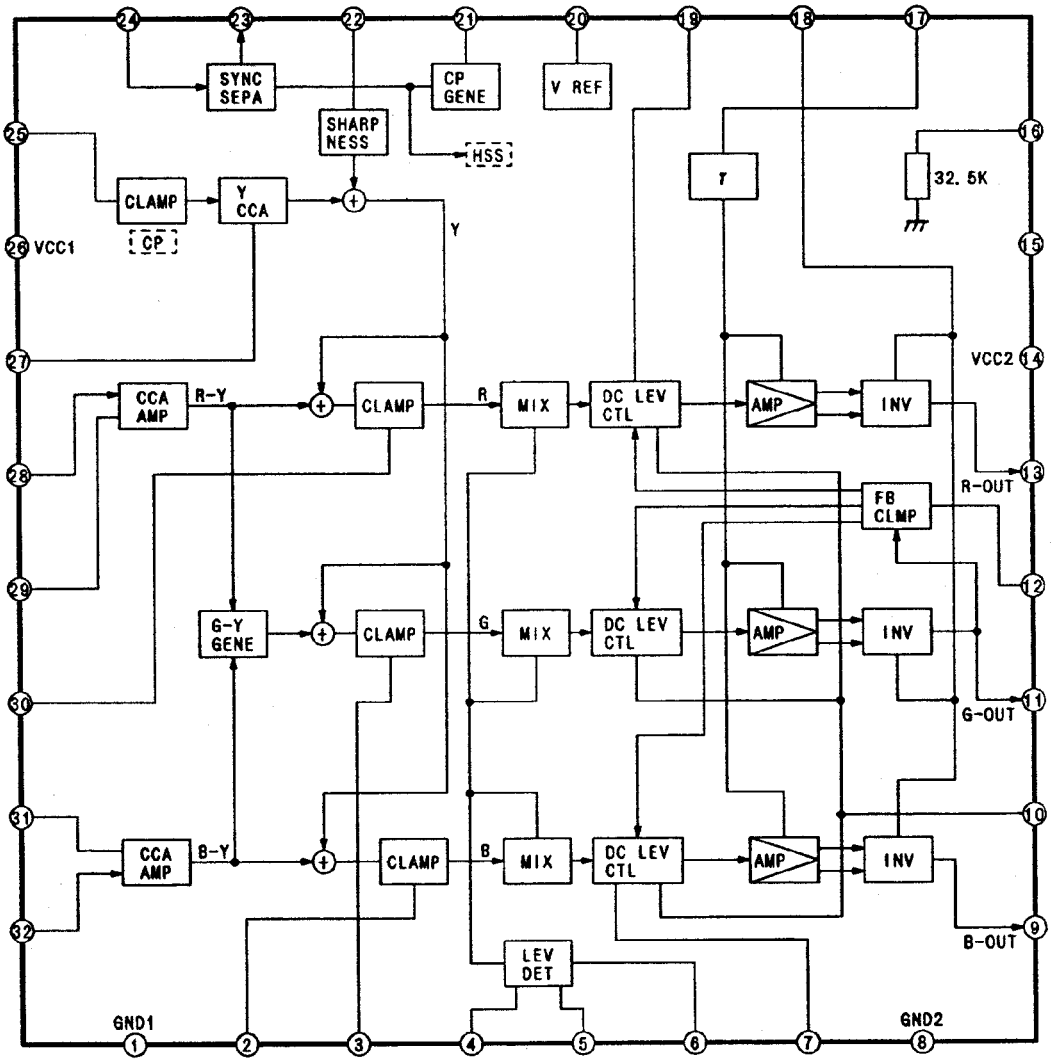
## IC801 (FA7610N)
## (LOCATION: A-1)



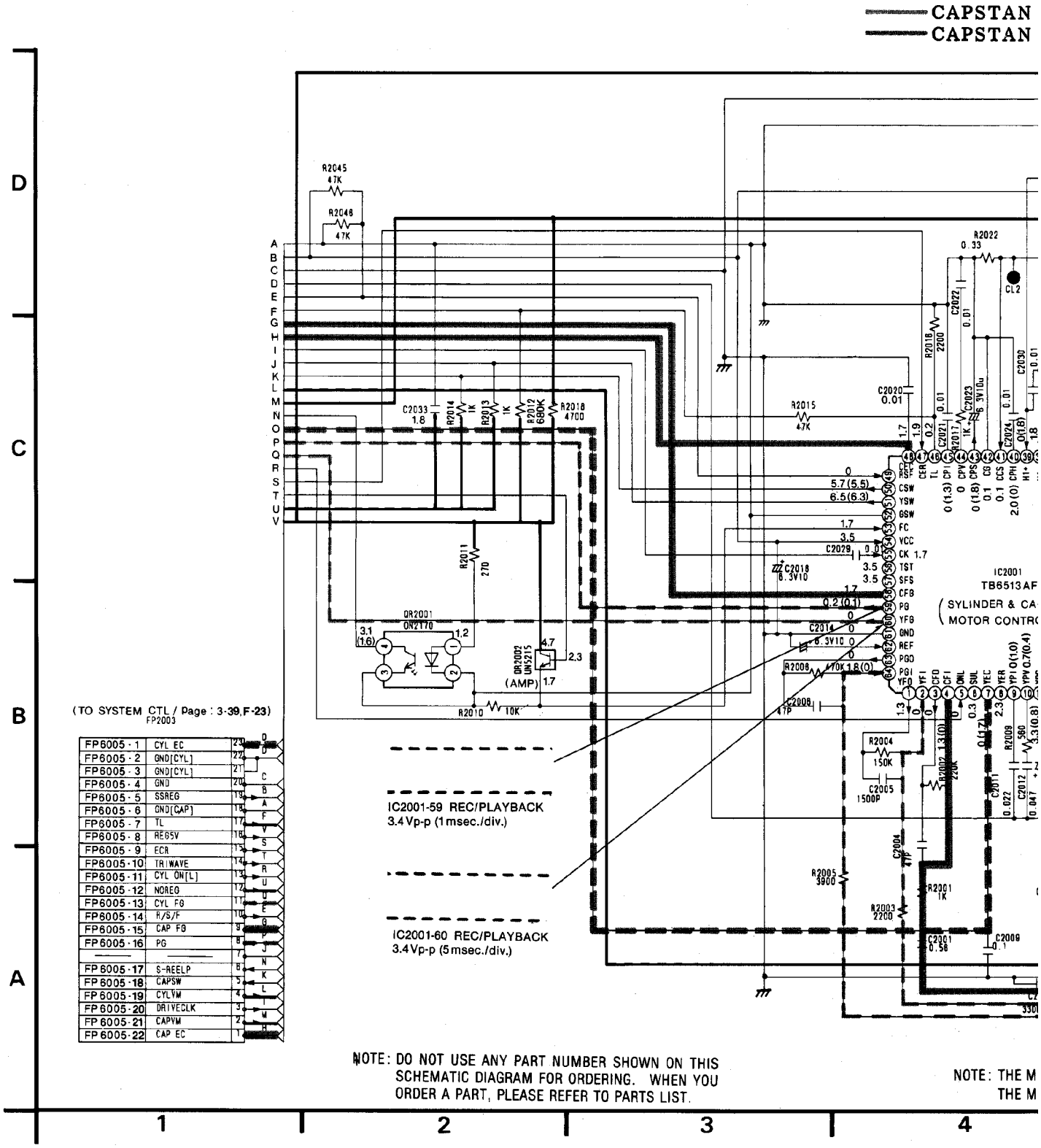

## IC803 (MN83803A)
## (LOCATION: B-6)



**IC802 (AN2523FAP)**
**(LOCATION: C-2)**

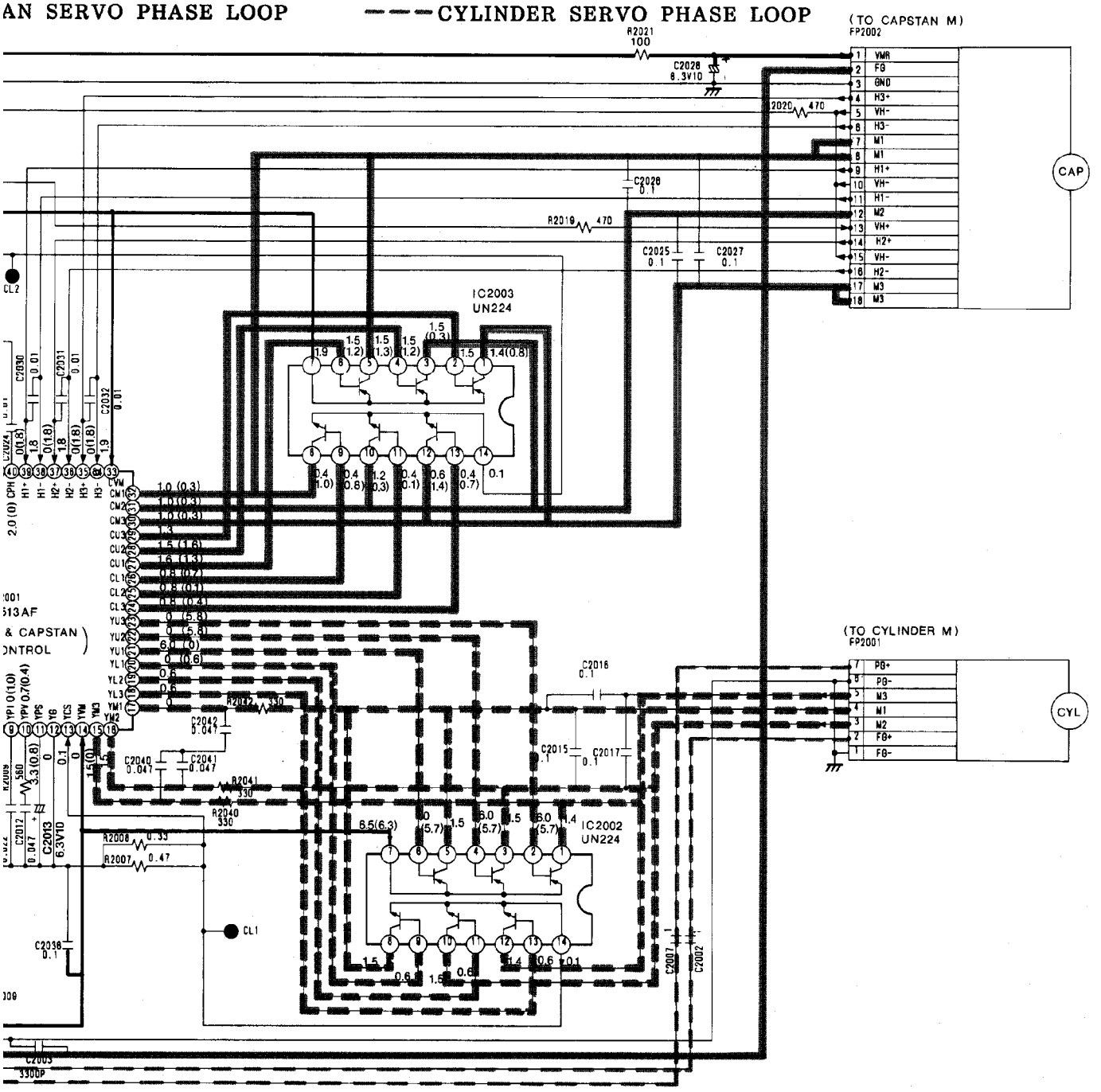


# 3-22. DRIVE SCHEMATIC DIAGRAM



AN SERVO SPEED LOOP
AN SERVO PHASE LOOP

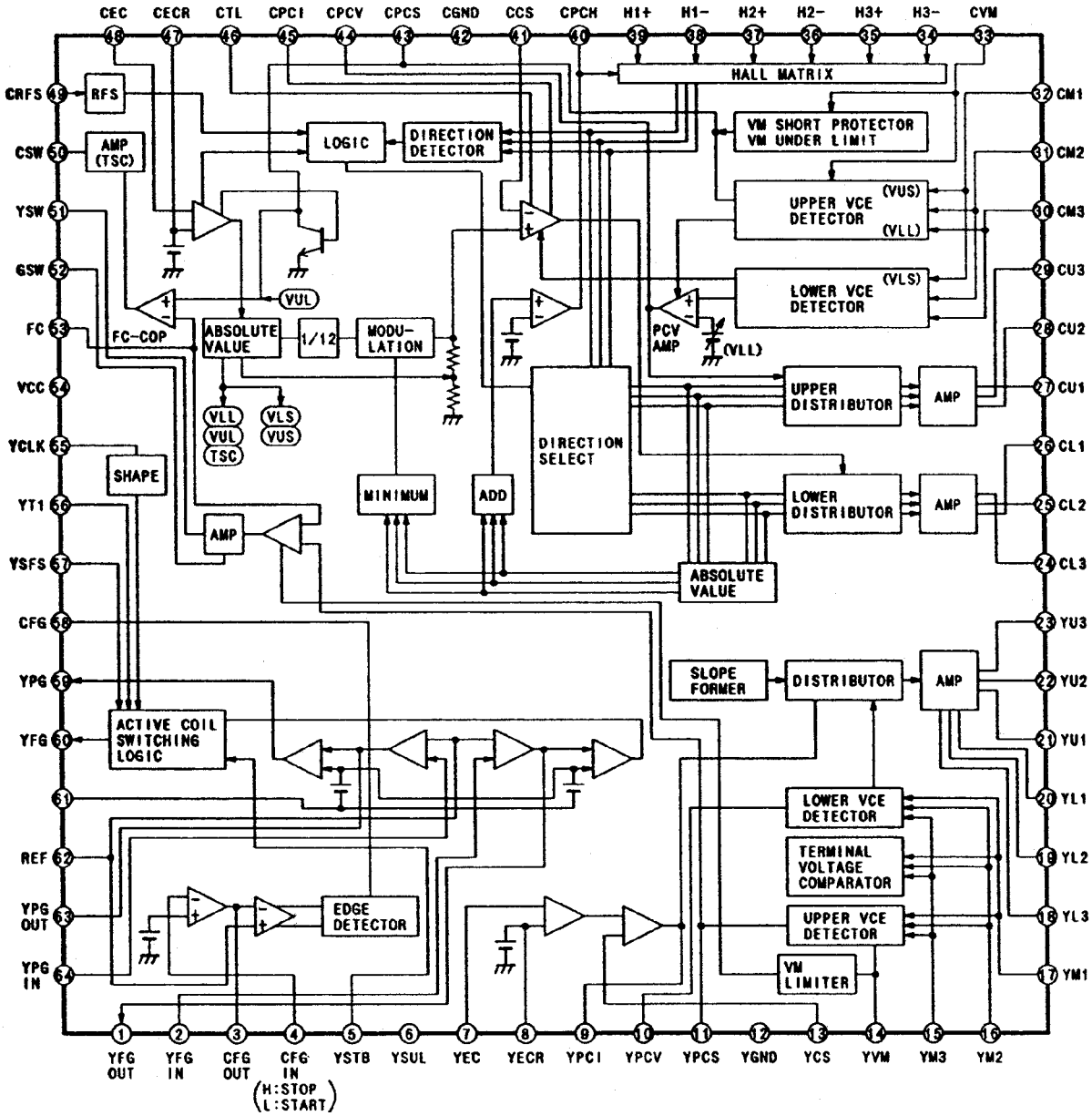
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP




HE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE (SP MODE)
HE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

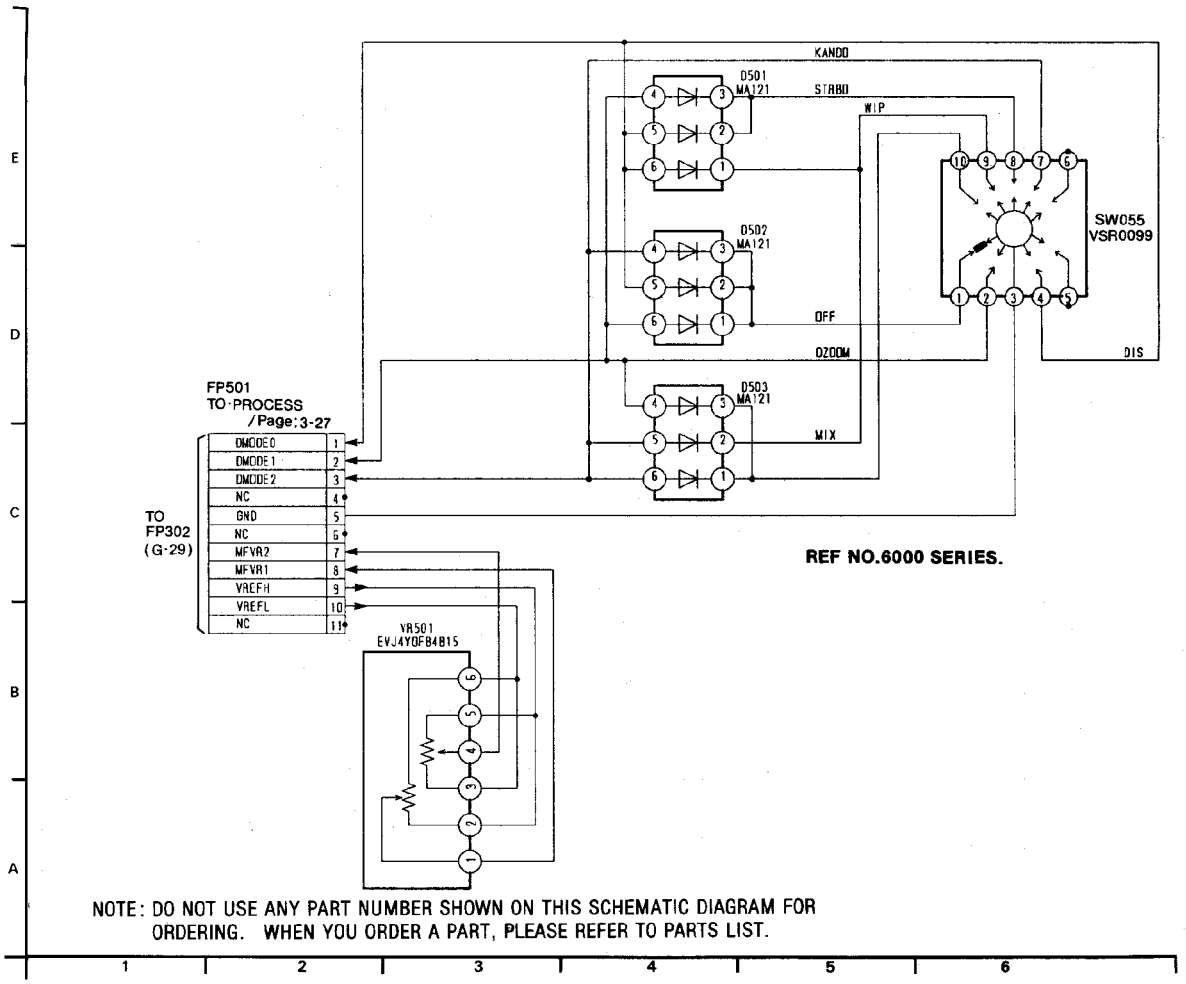
# IC BLOCK

## IC2001 (TB6513AF)
## (LOCATION: B-4)



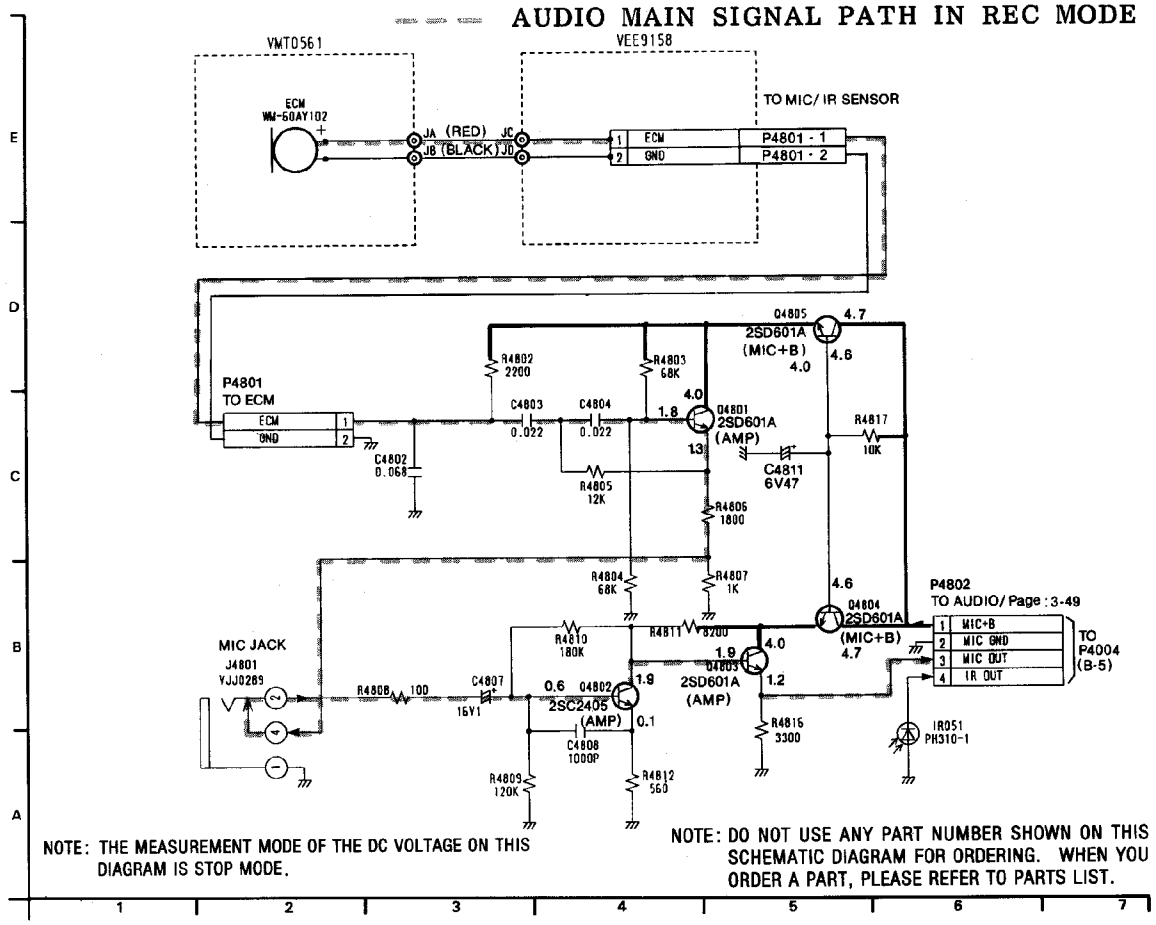
# 3-24. FRONT OPERATION SCHEMATIC DIAGRAM



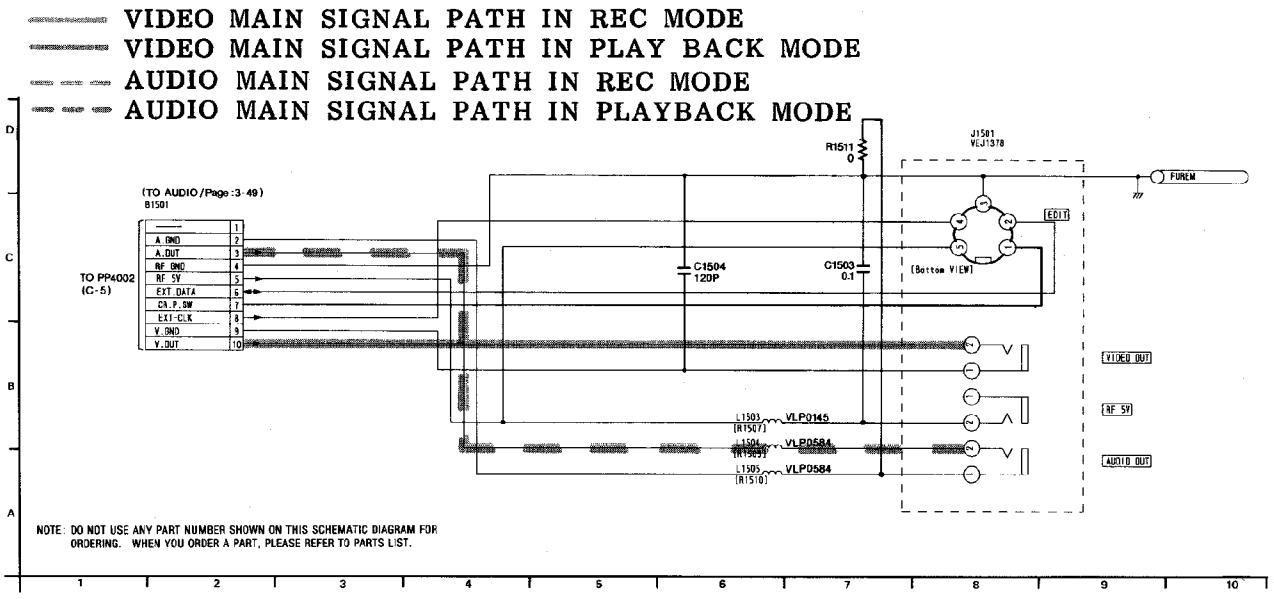



NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

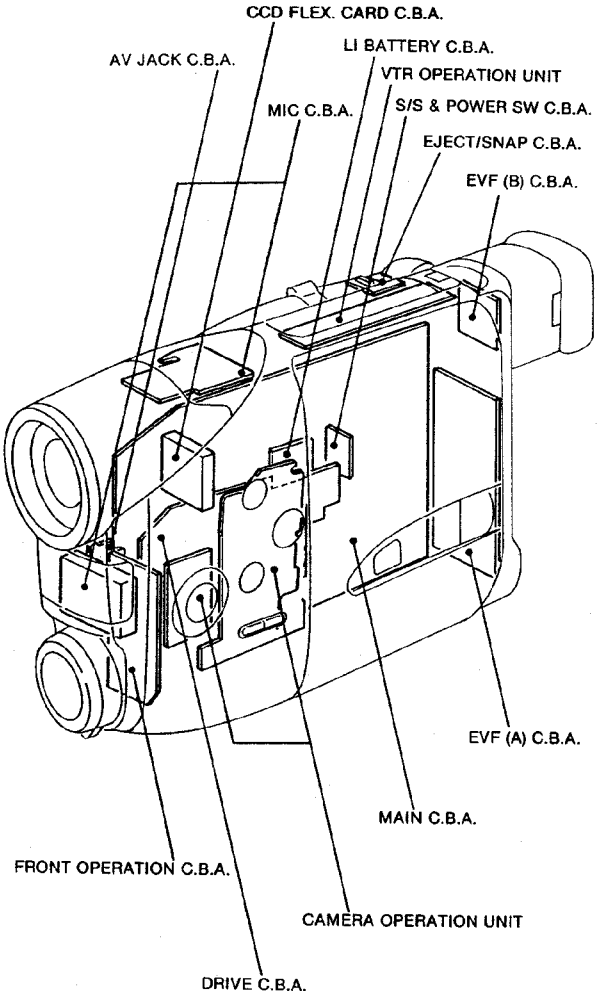
# 3-26. MIC SCHEMATIC DIAGRAM



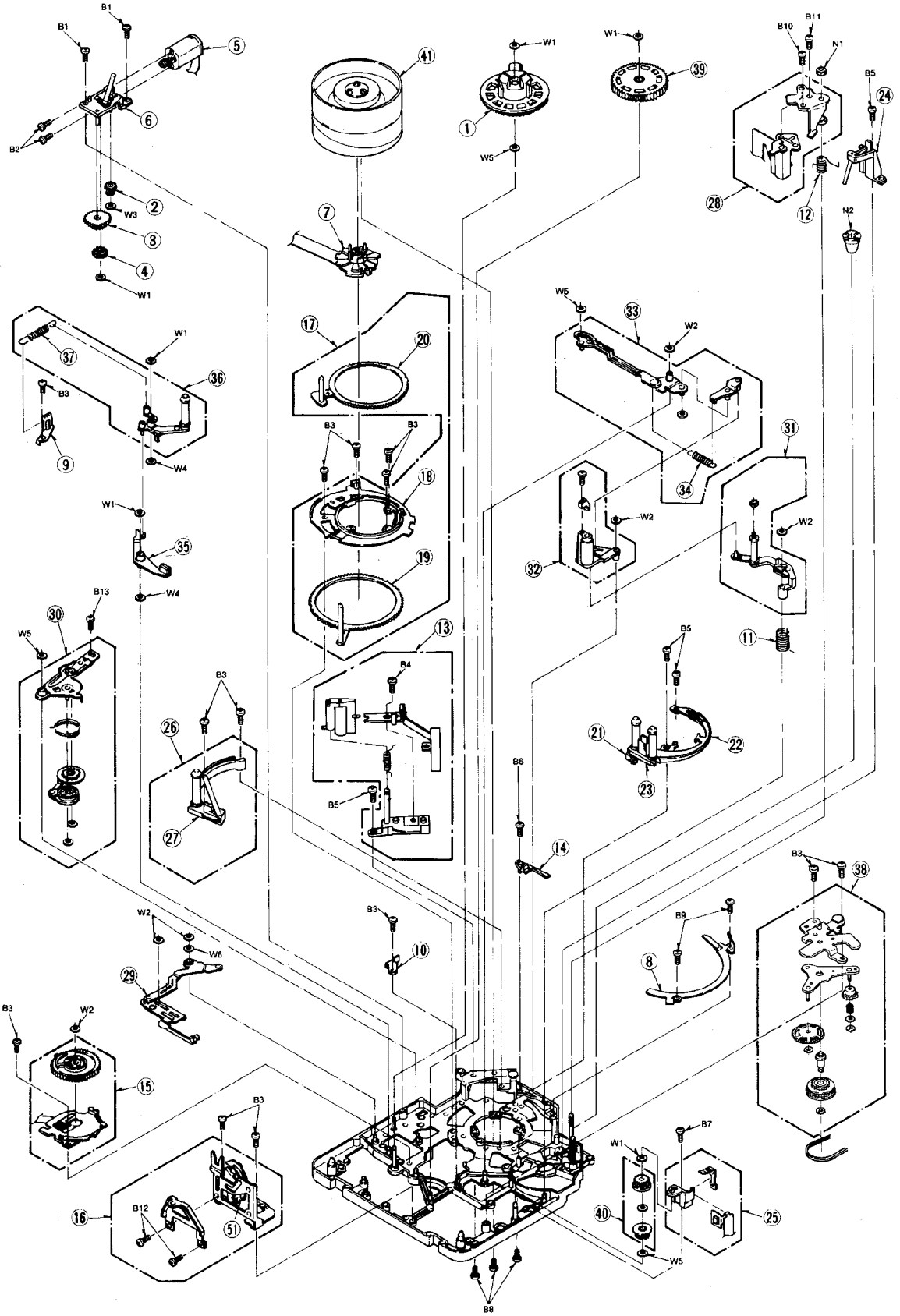

# 3-28. AV JACK SCHEMATIC DIAGRAM



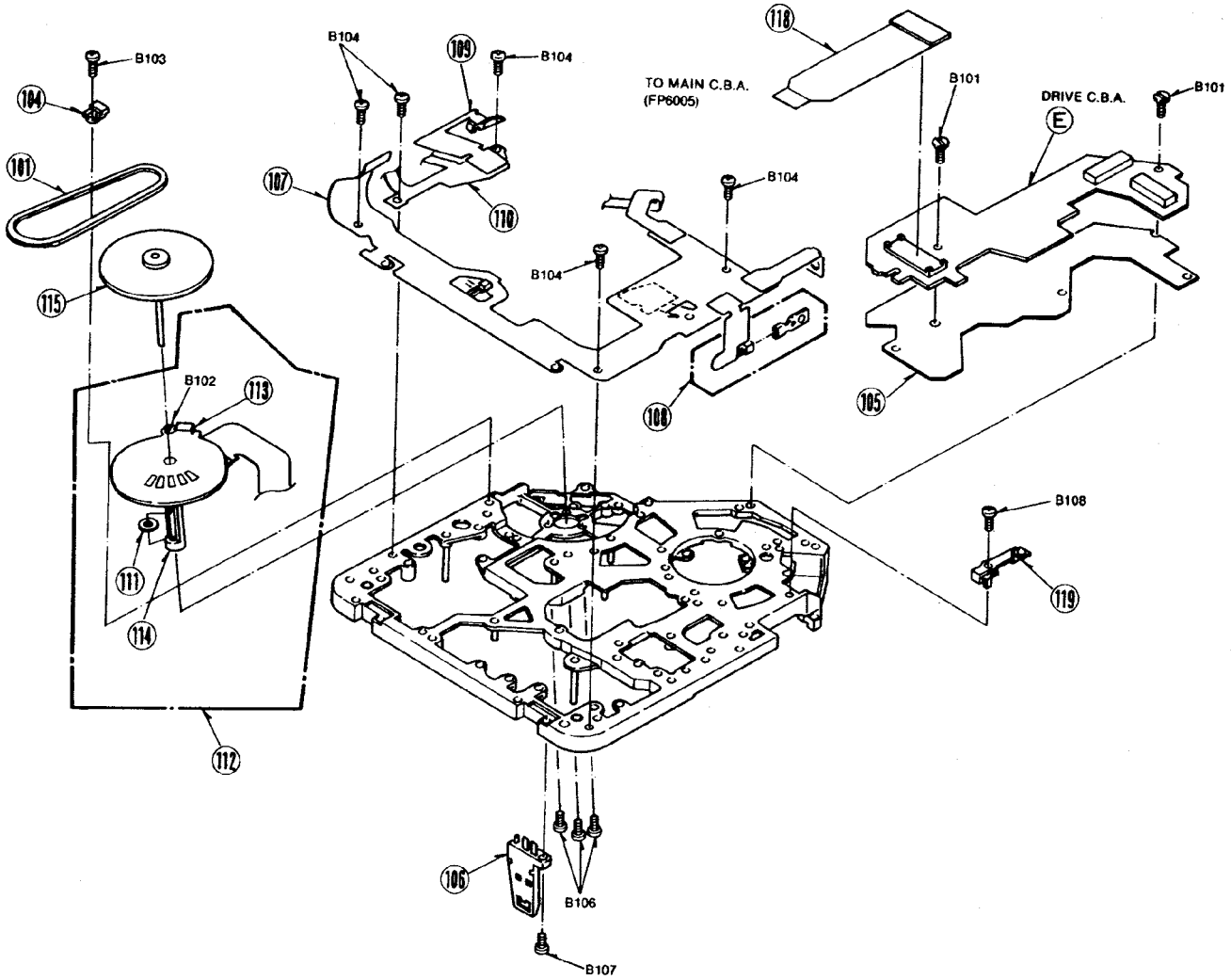
# 3-30. CIRCUIT BOARD LAYOUT



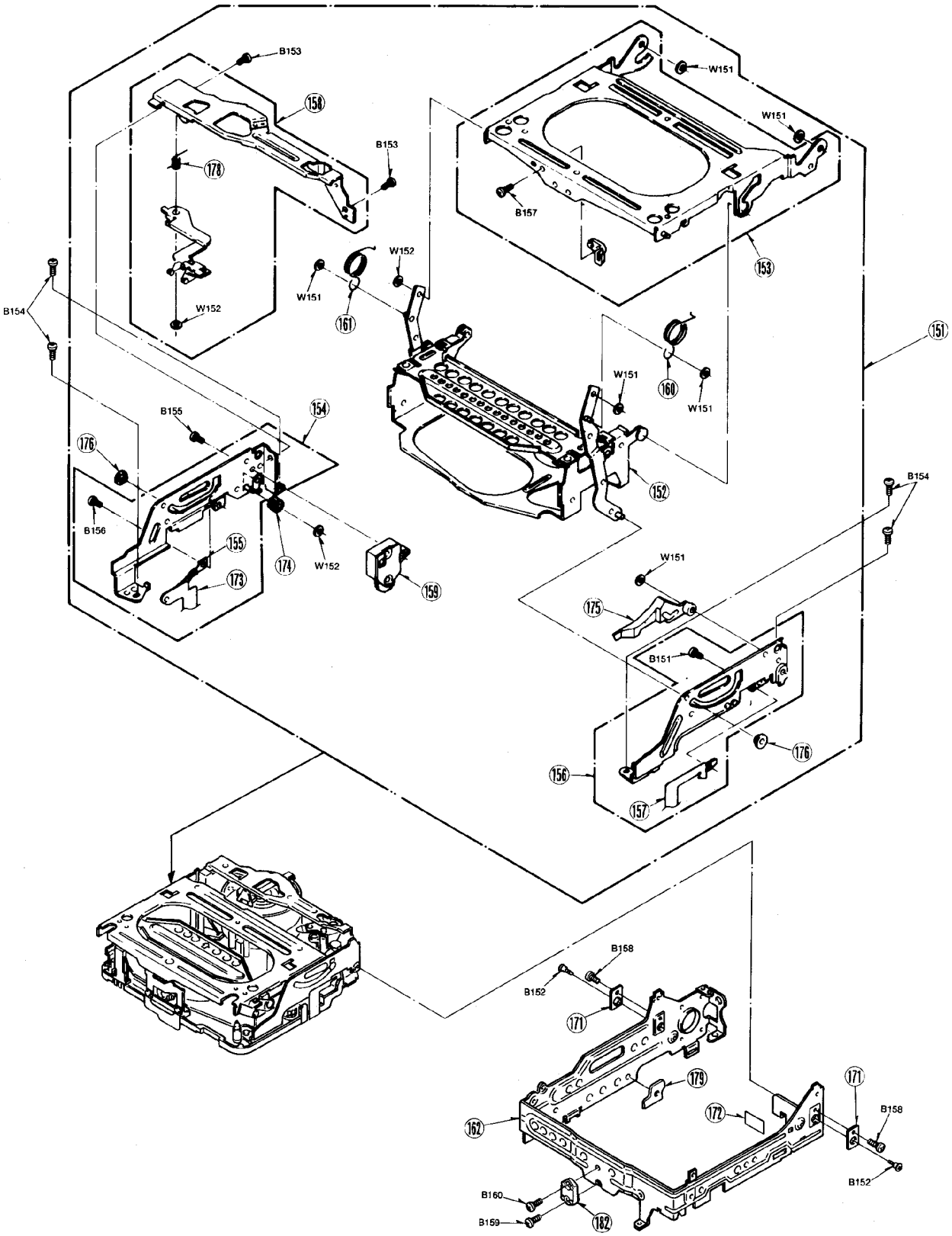
# 4-1. EXPLODED VIEWS ❶ VTR MECHANISM SECTION (1)



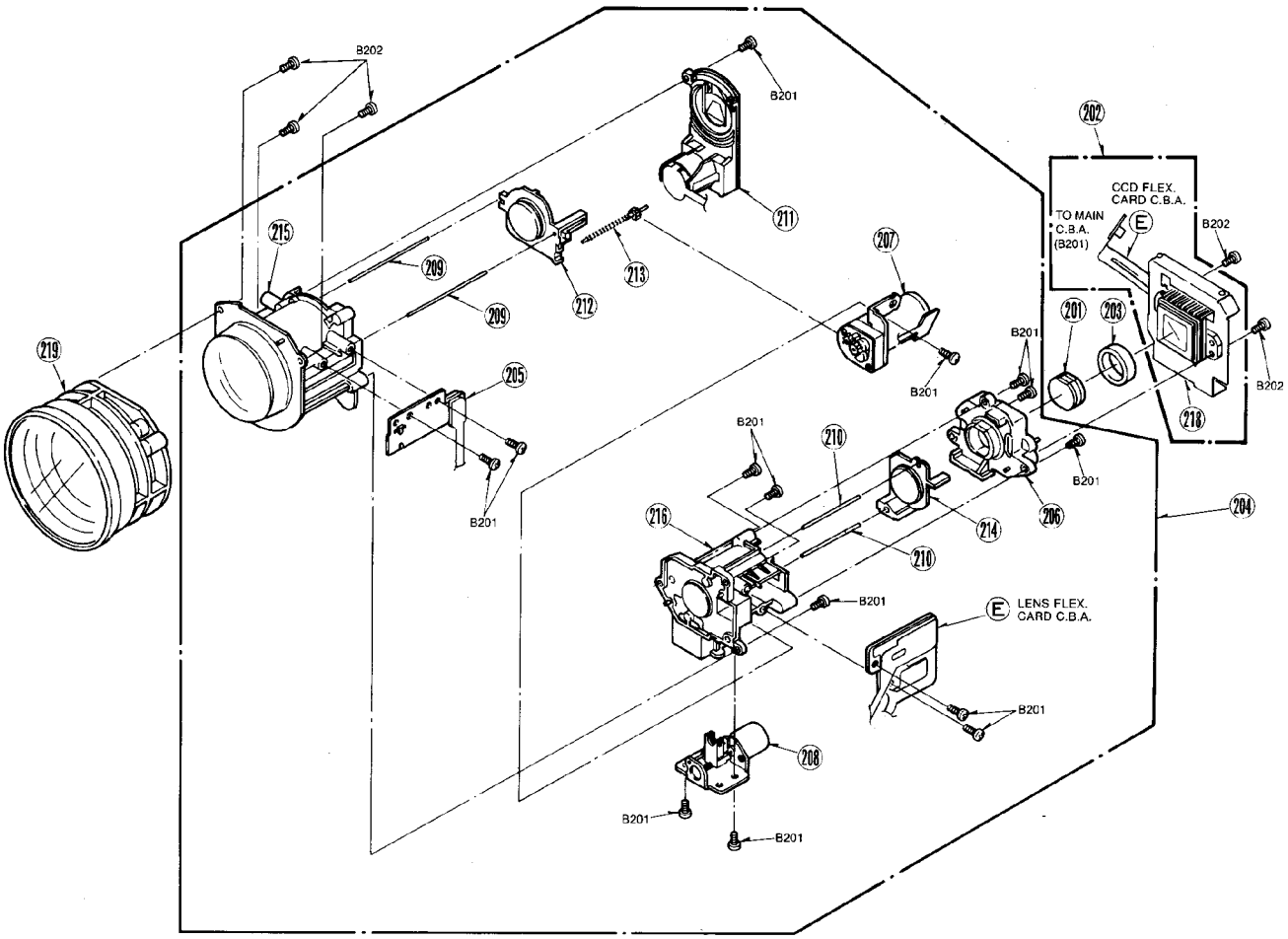
## ❷ VTR MECHANISM SECTION (2)



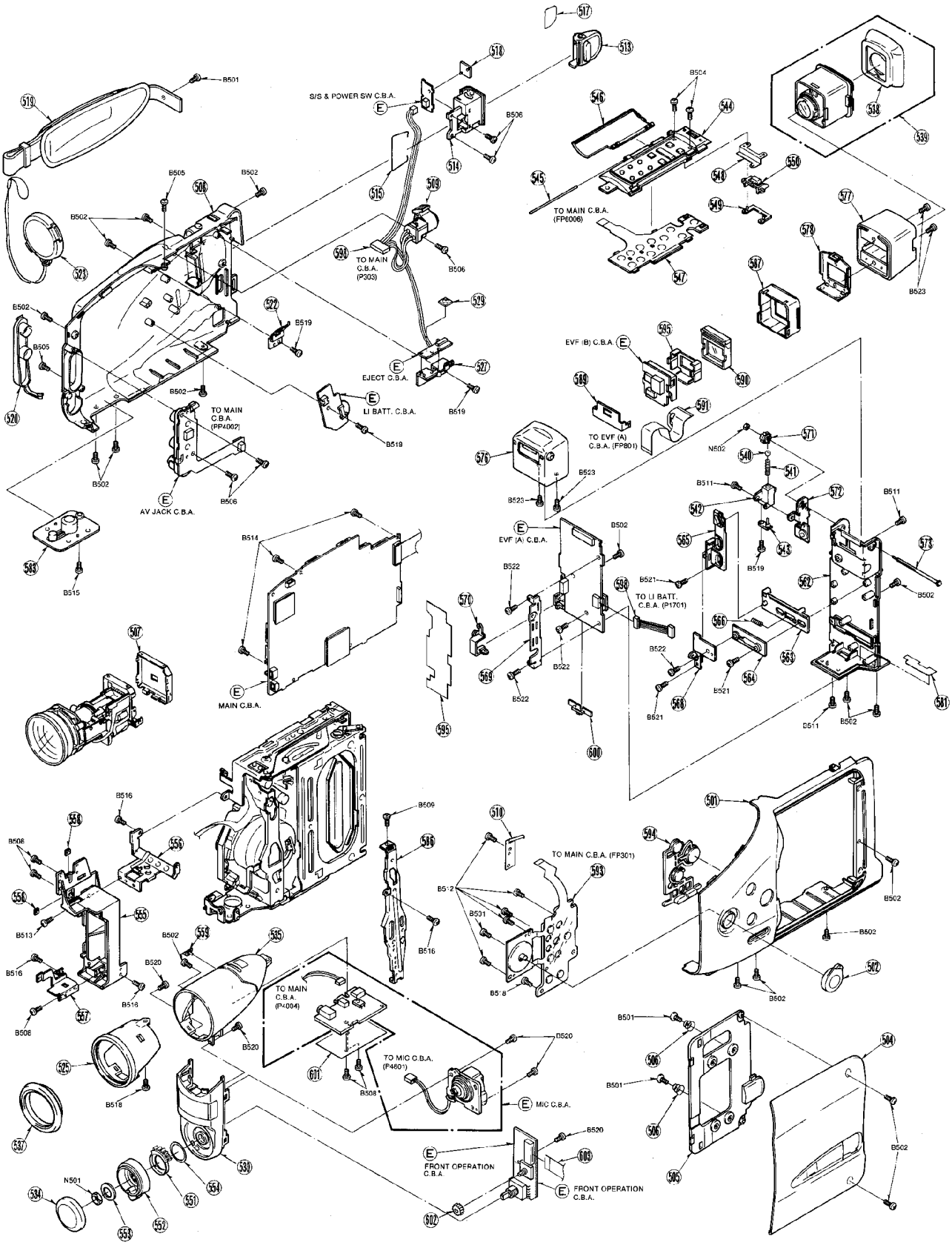
## ❸ VTR MECHANISM SECTION (3)



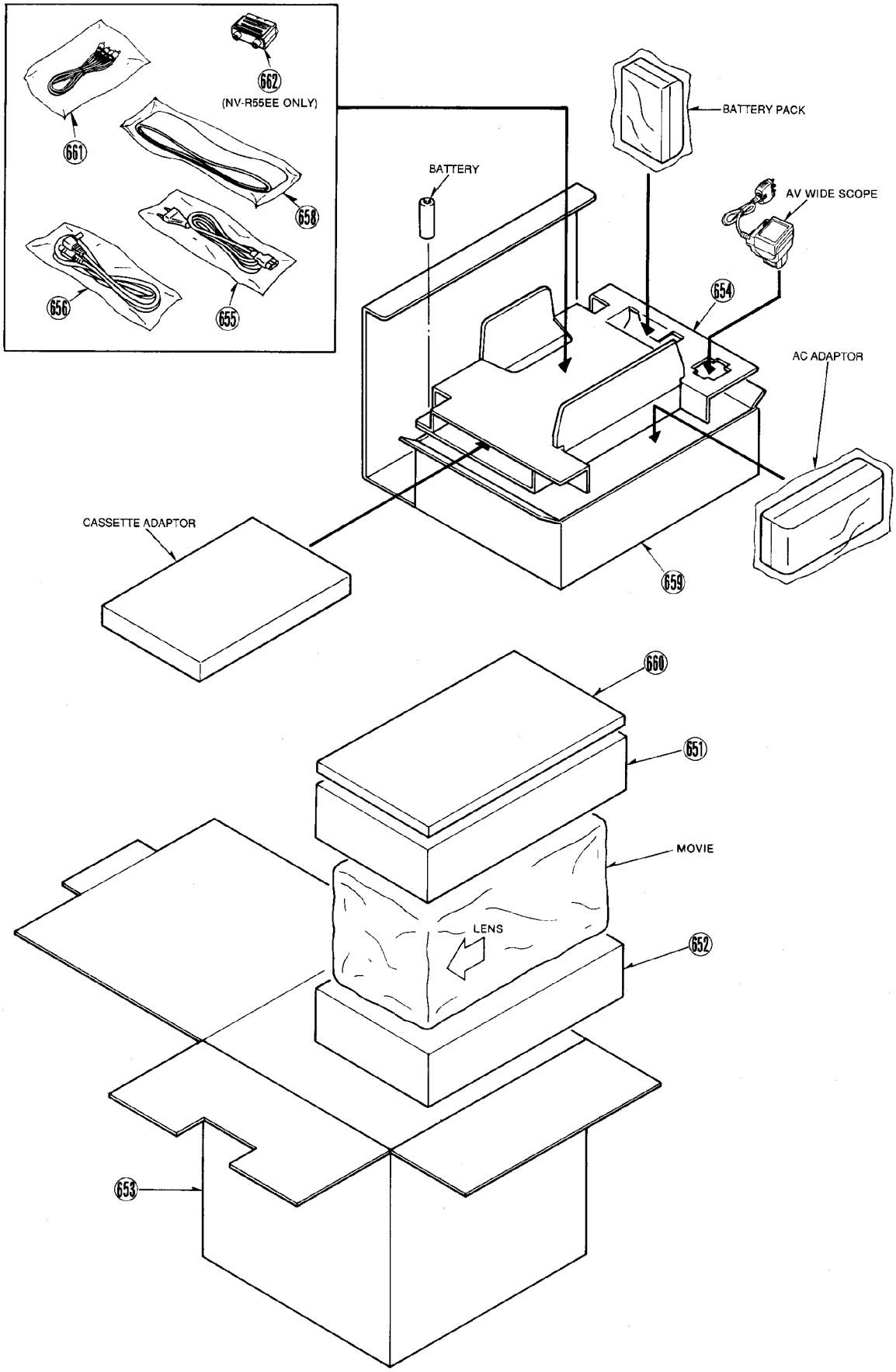
## ❹ CAMERA LENS SECTION



# ❺ FRAME & CASING PARTS SECTION



## ❻ PACKING PARTS & ACCESSORIES SECTION



# 4-2. MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| 1(1) | | VDR0226 | REEL BASE (S) | 1 | |
| 2(1) | | VDG0821 | BRAKE GEAR (A) | 1 | |
| 3(1) | | VDG0822 | BRAKE GEAR (B) | 1 | |
| 4(1) | | VDG0823 | BRAKE GEAR (C) | 1 | |
| 5(1) | | VEM0417 | LOADING MOTOR (1) U. | 1 | |
| 6(1) | | VXA4527 | MOTOR HOLDER U. | 1 | |
| 7(1) | | VEK7277 | RT CONNECTOR U. | 1 | |
| 8(1) | | VMA8502 | T-RING SLIDER | 1 | |
| 9(1) | | VMA8505 | TEN-REG.SPRING HOOK | 1 | |
| 10(1) | | VMA8532 | PENDULUM ARM HOLDER | 1 | |
| 11(1) | | VMB2362 | T3 ARM SPRING | 1 | |
| 12(1) | | VMB2365 | AC HEAD SPRING | 1 | |
| 13(1) | | VXA5306 | S-GUIDE STAND U. | 1 | |
| 14(1) | | VMD1851 | T-BOAT GUIDE | 1 | |
| 15(1) | | VSR0096 | MODE SWITCH U. | 1 | |
| 16(1) | | VXA5001 | LOCK BASE U. | 1 | |
| 17(1) | | VXA4517 | LOADING RING U. | 1 | |
| 18(1) | | VMD1824 | RING GUIDE | 1 | |
| 19(1) | | VXA4518 | T-RING U. | 1 | |
| 20(1) | | VXA4519 | S-RING U. | 1 | |
| 21(1) | | VEK5549 | LED U. | 1 | |
| 22(1) | | VMD1828 | T-RAIL | 1 | |
| 23(1) | | VXA5260 | T-BOAT U. | 1 | |
| 24(1) | | VXA4528 | T4 POST U. | 1 | |
| 25(1) | | VXA4997 | T-REEL SENSOR U. | 1 | |
| 26(1) | | VXA5153 | S-RAIL U. | 1 | |
| 27(1) | | VXA5124 | S-BOAT U. | 1 | |
| 28(1) | | VXA5201 | AC HEAD U. | 1 | |
| 29(1) | | VXL2393 | EJECT LEVER (1) U. | 1 | |
| 30(1) | | VXL2401 | SWING ARM U. | 1 | |
| 31(1) | | VXL2431 | T3 ARM (A) U. | 1 | |
| 32(1) | | VXL2139 | PINCH ARM U. | 1 | |
| 33(1) | | VXL2140 | PINCH DRIVE ARM U. | 1 | |
| 34(1) | | VMB2363 | PINCH PRESSURE SPRING | 1 | |
| 35(1) | | VXL2144 | PAD ARM U. | 1 | |
| 36(1) | | VXL2145 | TEN-REG. ARM U. | 1 | |
| 37(1) | | VMB2364 | TEN-REG. SPRING | 1 | |
| 38(1) | | VXL2399 | IDLER U. | 1 | |
| 39(1) | | VXP1308 | RELAY GEAR U. | 1 | |
| 40(1) | | VXP1313 | T-DRIVE GEAR U. | 1 | |
| 41(1) | | VEG1175 | CYLINDER U. | 1 | |
| 51(1) | | VMB2369 | LOCK SPRING | 1 | |
| B1(1) | | XQN14+B25FY | SCREW | 2 | |
| B2(1) | | XQN14+A14 | SCREW | 2 | |
| B3(1) | | XQN14+B2 | SCREW | 13 | |
| B4(1) | | XQN14+BJ35 | SCREW | 1 | |
| B5(1) | | XQN14+B25FY | SCREW | 3 | |
| B6(1) | | XQN14+B25FY | SCREW | 1 | |
| B7(1) | | XQN14+B25FY | SCREW | 1 | |
| B8(1) | | XQN14+C35R | SCREW | 3 | |
| B9(1) | | VHD0711 | SCREW | 2 | |
| B10(1) | | VHD0700 | SCREW | 1 | |
| B11(1) | | VHD0699 | SCREW | 1 | |
| B12(1) | | XQN14+CF25 | SCREW | 2 | |
| B13(1) | | VHD0707 | SCREW | 1 | |
| N1(1) | | VHN0047 | NUT | 1 | |
| N2(1) | | VHN0175 | NUT | 1 | |
| W1(1) | | VMX2027 | WASHER | 6 | |
| W2(1) | | VMX2026 | WASHER | 7 | |
| W3(1) | | VMX2051 | WASHER | 1 | |
| W4(1) | | XWGV1223G | WASHER | 2 | |
| W5(1) | | XWGV12Y3G | WASHER | 3 | |
| W6(1) | | VMX2026 | WASHER | 1 | |
| | | | | | |
| | | | | | |
| 101(2) | | VDV0232 | CAPSTAN BELT | 1 | |
| 104(2) | | VMD1846 | CAPSTAN STOPPER | 1 | |
| | | | | | |
| | | | | | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| 105(2) | | VMZ1871 | BARRIER | 1 | |
| 106(2) | | VSH0055 | REC SAFETY SW U. | 1 | |
| 107(2) | | VWJ0719 | MECH.FLEXIBLE CARD | 1 | |
| 108(2) | | VXA4511 | PHOTO (L) U. | 1 | |
| 109(2) | | VXA4514 | PHOTO (R) U. | 1 | |
| 110(2) | | VXA4997 | T-REEL SENSOR U. | 1 | |
| 111(2) | | VDB1129 | LOWER BEARING | 1 | |
| 112(2) | | VEK7314 | STATOR U. | 1 | |
| 113(2) | | VBK0059 | MR HEAD | 1 | |
| 114(2) | | VXD0134 | HOUSING U. | 1 | |
| 115(2) | | VXP1303 | ROTOR U. | 1 | |
| 118(2) | | VJB02431 | DRIVE FLEX. CARD | 1 | |
| 119(2) | | VMP4011 | H.A. EARTH PLATE | 1 | |
| B101(2) | | VHD0681 | SCREW | 2 | |
| B102(2) | | VHD0593 | SCREW | 1 | |
| B103(2) | | XQN14+B2 | SCREW | 1 | |
| B104(2) | | XQN14+C2R | SCREW | 5 | |
| B106(2) | | XQN14+A3 | SCREW | 3 | |
| B107(2) | | XQN14+CF4 | SCREW | 1 | |
| B108(2) | | XQN14+C2 | SCREW | 1 | |
| | | | | | |
| | | | | | |
| 151(3) | | VXA5198 | GARAGE U. | 1 | |
| 152(3) | | VXA5199 | HOLDER U. | 1 | |
| 153(3) | | VXA4863 | GARAGE (1) U. | 1 | |
| 154(3) | | VXA4510 | STAND (L) U. | 1 | |
| 155(3) | | VXA4511 | PHOTO (L) U. | 1 | |
| 156(3) | | VXA4513 | STAND (R) U. | 1 | |
| 157(3) | | VXA4514 | PHOTO (R) U. | 1 | |
| 158(3) | | VXL2222 | TAPE GUIDE U. | 1 | |
| 159(3) | | VXP1472 | DUMPER | 1 | |
| 160(3) | | VMB2367 | UP SPRING (R) | 1 | |
| 161(3) | | VMB2368 | UP SPRING (L) | 1 | |
| 162(3) | | VMP4070 | VTR FRAME (A) | 1 | |
| 171(3) | | VGQ3137 | INSULATION PIECE (A) | 2 | |
| 172(3) | | VGQ3353 | FRAME BARRIER | 1 | |
| 173(3) | | VWJ0548 | PHOTO FLEX.CARD | 1 | |
| 174(3) | | VDG0827 | DUMPER RELAY GEAR | 1 | |
| 175(3) | | VML2580 | TAPE OPEN LEVER | 1 | |
| 176(3) | | VDP1406 | ARM HOLDER | 2 | |
| 178(3) | | VMB2498 | TAPE GUIDE SPRING | 1 | |
| 179(3) | | VGQ3327 | FRAME SPACER | 1 | |
| 182(3) | | VGQ3444 | INSULATION PIECE | 1 | |
| B151(3) | | VHD0776 | SCREW | 1 | |
| B152(3) | | VHD0713 | SCREW | 2 | |
| B153(3) | | XQN14+B2 | SCREW | 2 | |
| B154(3) | | VHD0838 | SCREW | 4 | |
| B155(3) | | XQN16+AJ8 | SCREW | 1 | |
| B156(3) | | XQN14+CM2 | SCREW | 1 | |
| B157(3) | | XQS14+A25FZ | SCREW | 1 | |
| B158(3) | | XQN2+C2 | SCREW | 2 | |
| B159(3) | | XQN2+CF5 | SCREW | 1 | |
| B160(3) | | XQN2+C25 | SCREW | 1 | |
| W151(3) | | VMX1042 | WASHER | 6 | |
| W152(3) | | VMX1061 | WASHER | 3 | |
| | | | | | |
| | | | | | |
| 201(4) | | VDL0419 | CRYSTAL FILTER | 1 | |
| 202(4) | | VEK7556 | CCD UNIT | 1 | |
| 203(4) | | VMX2304 | CCD CUSHION | 1 | |
| 204(4) | | VXW0188 | LENS U. | 1 | |
| 205(4) | | EVAWMCJ02B14 | ZOOM ENCODER U. | 1 | |
| 206(4) | | VDW0259 | CRYSTAL MOUNT PLATE | 1 | |
| 207(4) | | VEM0450 | ZOOM MOTOR U. | 1 | |
| 208(4) | | VEM0451 | FOCUS MOTOR U. | 1 | |
| 209(4) | | VMS5384 | Z GUIDE POLE | 2 | |
| 210(4) | | VMS5385 | F GUIDE POLE | 2 | |
| 211(4) | | VXL2443 | IRIS U. | 1 | |
| 212(4) | | VXP1412 | 2ND. MOVING FRAME U. | 1 | |
| 213(4) | | VXP1413 | SCREW SHAFT U. | 1 | |
| 214(4) | | VXP1414 | 4TH. MOVING FRAME U. | 1 | |
| 215(4) | | VXQ0356 | MAIN FRAME U. | 1 | |
| 216(4) | | VXQ0357 | 3RD. MOVING FRAME U. | 1 | |
| 218(4) | | VSC3671 | CCD SHIELD CASE | 1 | |
| 219(4) | | VXQ0422 | WIDE LENS HOLDER U. | 1 | |
| | | | | | |
| | | | | | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| B201(4) | | XQN16+CJ5 | SCREW | 14 | |
| B202(4) | | XQN16+CJ6 | SCREW | 5 | |
| | | | | | |
| | | | | | |
| 501(5) | | VYK6316 | SIDE CASE (R)(1)U. | 1 | |
| 502(5) | | VGU6793 | MODE SELECT LEVER | 1 | |
| 504(5) | | VYK6319 | CASSETTE COVER (1) U. | 1 | NV-R55A/EE |
| 504(5) | | VYK6320 | CASSETTE COVER (1) U. | 1 | NV-R55OEN/ENH |
| 505(5) | | VGU6312 | CASSETTE LOCK BUTTON | 1 | |
| 506(5) | | VMB2604 | CASSETTE COIL SPRING | 2 | |
| 507(5) | | VSC4187 | CCD SHIELD CASE | 1 | |
| 508(5) | | VYK6326 | SIDE CASE (L)(1)U. | 1 | |
| 509(5) | | EUWS5A000B14 | ZOOM BUTTON U. | 1 | |
| 510(5) | | VMC0969 | CASSETTE HOLD SPRING | 1 | |
| 513(5) | | VXU1274 | S/S BUTTON (1) U. | 1 | |
| 514(5) | | VGQ3731 | S/S BUTTON HOLDER | 1 | |
| 515(5) | | VMB2594 | S/S BUTTON COVER SPRING | 1 | |
| 517(5) | | VGQ3588 | S/S BUTTON SHEET | 1 | |
| 518(5) | | VMG0833 | RUBBER SW | 1 | |
| 519(5) | | VYC0618 | GRIP BELT U. | 1 | |
| 520(5) | | VKF2009 | AV JACK COVER | 1 | |
| 522(5) | | VEK6580 | DEW SENSOR U. | 1 | |
| 523(5) | | VYF1987 | HOOD CAP U. | 1 | |
| 525(5) | | VDW0292 | LENS PIECE | 1 | |
| 527(5) | | VGQ3186 | EJECT/SNAP C.B.A. HOLDER | 1 | |
| 529(5) | | VMG0358 | RUBBER SW | 1 | |
| 530(5) | | VYK6322 | FRONT CASE (1) U. | 1 | |
| 534(5) | | VGU6840 | FOCUS KNOB | 1 | |
| 535(5) | | VYK6324 | LENS COVER (1) U. | 1 | |
| 537(5) | | VDW0303 | LENS HOOD | 1 | |
| 538(5) | | VMG0803 | EYE CAP | 1 | |
| 539(5) | | VYQ1011 | EYE CAP U. | 1 | |
| 540(5) | | VMP2327 | STEEL BALL | 1 | |
| 541(5) | | VMB2584 | ROTATION LOCK SPRING | 1 | |
| 542(5) | | VGQ3140 | ROTATION SUPPORT PIECE | 1 | |
| 543(5) | | VGQ3199 | LOCK SPRING HOLDER | 1 | |
| 544(5) | | VXU1149 | TOP OPERATION PANEL (1) U. | 1 | |
| 545(5) | | VMS5382 | SHAFT | 1 | |
| 546(5) | | VKF2046 | TOP DOOR | 1 | |
| 547(5) | | ESU39009 | VIR OPERATION U. | 1 | |
| 548(5) | | VSC3918 | EARTH ANGLE | 1 | |
| 549(5) | | VGL0563 | PANEL LIGHT | 1 | |
| 550(5) | | VGU6321 | CAM/VTR SELECT BUTTON | 1 | |
| 551(5) | | VDG1023 | SELECT GEAR | 1 | |
| 552(5) | | VGU6843 | SELECT KNOB | 1 | |
| 553(5) | | VMX2247 | SPACER | 1 | |
| 554(5) | | VMX2288 | SELECT KNOB SPACER | 1 | |
| 555(5) | | VMD2332 | LENS FRAME | 1 | |
| 556(5) | | VMP4072 | SUPPORT ANGLE | 1 | |
| 557(5) | | VMP4284 | FRONT ANGLE | 1 | |
| 558(5) | | VHN0057 | CASE FIX. ANGLE | 2 | |
| 559(5) | | VKF2295 | MIC CAP | 1 | |
| 562(5) | | VKM4061 | REAR CASE | 1 | |
| 563(5) | | VGQ3138 | BATTERY LOCK | 1 | |
| 564(5) | | VGQ3139 | BATTERY LOCK HOLD PLATE | 1 | |
| 565(5) | | VGU6243 | BATTERY LOCK KNOB | 1 | |
| 566(5) | | VMB2483 | BATTERY LOCK SPRING | 1 | |
| 568(5) | | VMP4061 | CASE (L) FIX. ANGLE | 1 | |
| 569(5) | | VMP4062 | CASE (R) FIX. ANGLE | 1 | |
| 570(5) | | VMP4075 | DC JACK HOLD ANGLE | 1 | |
| 571(5) | | VKC0415 | ROTATION PIECE | 1 | |
| 572(5) | | VMP4012 | ROTATION SUPPORT PLATE | 1 | |
| 573(5) | | VMS5489 | ROTATION SHAFT | 1 | |
| 576(5) | | VKM3395 | EVF CASE (FRONT) | 1 | |
| 577(5) | | VKM3396 | EVF CASE (REAR) | 1 | |
| 578(5) | | VMP4060 | EYE SIGHT FIXING PLATE | 1 | |
| 581(5) | | VMZ2179 | REAR SHEET | 1 | |
| 583(5) | | VYQ0998 | TRIPOD FRAME U. | 1 | |
| 586(5) | | VMP4286 | VTR FRAME (B) | 1 | |
| 587(5) | | VJF1090 | LCD HOLDER PIECE | 1 | |
| 589(5) | | VGQ3141 | EVF (B) C.B.A. HOLDER | 1 | |
| 590(5) | | FO7KM150 | LCD | 1 | |
| 591(5) | | VWJ0803 | EVF (B) FLEX. CARD | 1 | |
| 593(5) | | ESU39021X1 | CAMERA OPERATION UNIT | 1 | |
| 594(5) | | VGU6852 | CAM. OPE. BUTTON | 1 | |
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| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| 595(5) | | VMZ2364 | EVF BARRIER | 1 | |
| 598(5) | | VEE9161 | S/S, ZOOM CONNECTOR CABLE | 1 | |
| 600(5) | | VGU6541 | AGS KNOB | 1 | |
| 601(5) | | VMZ2370 | MIC C.B.A. BARRIER | 1 | |
| 602(5) | | VDG1024 | SW GEAR | 1 | |
| 603(5) | | VWJ0906 | FRONT OPERATION FLEX. CARD | 1 | |
| B501(5) | | VHD0794 | SCREW | 4 | |
| B502(5) | | VHD0729 | SCREW | 17 | |
| B504(5) | | XQN2+CF55FZ | SCREW | 2 | |
| B505(5) | | XQN2+CF8FZ | SCREW | 2 | |
| B506(5) | | XQN2+CJ8 | SCREW | 5 | |
| B508(5) | | XQN2+CJ4 | SCREW | 5 | |
| B509(5) | | XQN2+C25 | SCREW | 1 | |
| B511(5) | | XQN2+C3FZ | SCREW | 3 | |
| B512(5) | | XTB2+4J | SCREW | 5 | |
| B513(5) | | XQN2+CF4 | SCREW | 1 | |
| B514(5) | | XTB2+5F | SCREW | 3 | |
| B515(5) | | XQN2+C2 | SCREW | 1 | |
| B516(5) | | XQN2+CF3 | SCREW | 4 | |
| B518(5) | | XTB2+3J | SCREW | 2 | |
| B519(5) | | XQN2+CJ5 | SCREW | 3 | |
| B550(5) | | XQN2+CJ5FZ | SCREW | 4 | |
| N501(5) | | XNS9 | NUT | 1 | |
| N502(5) | | XNG2E | NUT | 1 | |
| | | | | | |
| | | | | | |
| 651(6) | | VPN4132 | CUSHION (UPPER) | 1 | |
| 652(6) | | VPN4133 | CUSHION (LOWER) | 1 | |
| 653(6) | | VPG7829 | PACKING | 1 | NV-R55A |
| 653(6) | | VPG7828 | PACKING | 1 | NV-R55EE |
| 653(6) | | VPG7827 | PACKING | 1 | NV-R55OENH |
| 653(6) | | VPG7826 | PACKING | 1 | NV-R55OEN |
| 654(6) | | VPN4134 | ACCESSORIES PAD | 1 | |
| 655(6) | | VJA0754 | AC CORD | 1 | <!>NV-R55A |
| 655(6) | | VJA0733 | AC CORD | 1 | <!>NV-R55OENH |
| 655(6) | | VJA0664 | AC CORD | 1 | <!>NV-R55EE,R55OEN |
| 656(6) | | VJA0769 | DC OUTPUT CABLE | 1 | |
| 658(6) | | VFC1757 | SHOLDER STRAP | 1 | |
| 659(6) | | VPN4065 | ACCESSORIES BOX | 1 | |
| 660(6) | | VQT6007 | OPERATING INSTRUCTIONS | 1 | <!>NV-R55A |
| | | | (ENGLISH) | | |
| 660(6) | | VQT6008 | OPERATING INSTRUCTIONS | 1 | <!>NV-R55OEN |
| | | | (ENGLISH/CHINESE/ARABIC/ | | |
| | | | RUSSIAN) | | |
| 660(6) | | VQT6009 | OPERATING INSTRUCTIONS | 1 | <!>NV-R55EE |
| | | | (ENGLISH/RUSSIAN/POLISH/ | | |
| | | | CZECHOSLOVAK) | | |
| 661(6) | | VFA0039 | AV CORD | 1 | |
| 662(6) | | VFA0152 | 21 PIN ADAPTOR | 1 | NV-R55EE |
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | ****** JIG & TOOLS ***** | | |
| | | | -------- ELECTRICAL ------- | | |
| | | VFM8180HUPF | VHS-C ALIGMENT TAPE | 1 | PAL |
| | | VFK0374 | COLOUR TEMP.CONV.FILRTER | 1 | (C12) OR VFK0713 |
| | | VEK0375 | COLOUR TEMP.CONV.FILRTER | 1 | (C2) OR VFK0716 |
| | | VFK0644 | EVR FIXTURE | 1 | |
| | | VFK0701ROM29 | ROM | 1 | |
| | | VFK0766A | EVR CONNECTION CABLE 5P | 1 | |
| | | VFK0734W | MEASURENT CABLE 24P | 1 | |
| | | VFK0524 | EXTENSION CABLE 3P | 1 | |
| | | VFK0727 | FLAT CABLE 16P | 1 | |
| | | VFK0728 | FLAT CABLE 9P | 1 | |
| | | VFK0729 | FLAT CABLE 6P | 1 | |
| | | VFK0839 | EXTENSION CABLE 30P | 1 | |
| | | VFK0894 | EXTENSION CABLE 5P | 1 | |
| | | VFK0913 | FLAT CABLE 18P | 1 | |
| | | VFK0929 | FLAT CABLE 12P | 1 | |
| | | VFK0949 | FLAT CABLE 22P | 1 | |
| | | | ------ MECHANICAL ------ | | |
| | | VFK0743 | H-POSITION ADJUSTMENT | 1 | |
| | | VFK0824 | ASTERISK TYPE RENCH | 1 | |
| | | VFK0335 | RETAINING RING REMOVER | 1 | |
| | | | | | |
| | | | | | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| | | VFK0329 | POST ADJ. SCREW DRIVER | 1 | |
| | | VFK0326 | HEX WRENCH SET | 1 | |
| | | VFK27 | HEAD CLEANING STICK | 1 | |
| | | MOR265 | MORITONE GREASE | 1 | |

NOTE(ONLY FOR NV-R550EN): There are two versions of NV-R550EN depends on countries.
One is for Hong Kong, the other one is for all of other "EN" area. The difference parts are only PACKING CASE and AC CORD.

# 4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE : Components identified with the mark (!) have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | VEP23247A | CAMERA/MAIN C.B.A. | 1 | (RTL) |
| | | | (Page:4-7) | | |
| | | | | | |
| | | VEP02418A | DRIVE C.B.A. | 1 | (RTL) |
| | | | (Page:4-14) | | |
| | | | | | |
| | | VEP28102A | E.V.F.(A) C.B.A. | 1 | (RTL) |
| | | | (Page:4-15) | | |
| | | | | | |
| | | VEP28103A | E.V.F.(B) C.B.A. | 1 | (RTL) |
| | | | (Page:4-16) | | |
| | | | | | |
| | | VEP22132C | CCD FLEX. CARD C.B.A. | 1 | (RTL) |
| | | | (Page:4-16) | | |
| | | | | | |
| | | VEK6690 | LENS FLEX. CARD C.B.A. | 1 | (RTL) |
| | | | (Page:4-17) | | |
| | | | | | |
| | | VEP00V20A | FRONT OPERATION C.B.A. | 1 | (RTL) |
| | | | (Page:4-17) | | |
| | | | | | |
| | | VEK7335 | MIC UNIT | 1 | (RTL) |
| | | | (Page:4-17) | | |
| | | | | | |
| | | VEP04457E | AV JACK C.B.A. | 1 | (RTL) |
| | | | (Page:4-17) | | |
| | | | | | |
| | | VEP00V80B | S/S C.B.A. | 1 | (RTL) |
| | | | (Page:4-17) | | |
| | | | | | |
| | | VEP00V69A | EJECT/SNAP C.B.A. | 1 | (RTL) |
| | | | (Page:4-17) | | |
| | | | | | |
| | | VEP00U65B | LITHIUM BATTERY C.B.A. | 1 | (RTL) |
| | | | (Page:4-17) | | |
| | | | | | |
| | ■ | VEP23247A | CAMERA/MAIN C.B.A. | | (RTL) |
| | | | | | |
| | | | | | |
| C200 | | ECUX1H100CCV | C.CAPACITOR CH 50V 10P | 1 | |
| C201 | | ECRJA010A11 | V.CAPACITOR | 1 | |
| C202 | | ECUX1H120JCV | C.CAPACITOR CH 50V 12P | 1 | |
| C202 | | ECUX1H120JCV | C.CAPACITOR CH 50V 12P | 1 | |
| C203 | | ECUX1H030CCV | C.CAPACITOR CH 50V 3P | 1 | |
| C204 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C205-07 | | ECUX1H100CCV | C.CAPACITOR CH 50V 10P | 3 | |
| C212 | | ECUX1H150JCV | C.CAPACITOR CH 50V 15P | 1 | |
| C213 | | ECUX1H100CCV | C.CAPACITOR CH 50V 10P | 1 | |
| C215 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C216 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C217 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C218 | | ECUX1H560JCV | C.CAPACITOR CH 50V 56P | 1 | |
| C220 | | ECST1AX156Z | T.CAPACITOR 10V 15U | 1 | |
| C221 | | ECST1CX685Z | T.CAPACITOR 16V 68U | 1 | |
| C222 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C225 | | ECST1GX155Z | T.CAPACITOR 40V 1.5U | 1 | |
| C226,27 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 2 | |
| C229,30 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C232 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C233 | | ECST1CY475Z | E.CAPACITOR 16V 47U | 1 | |
| C234 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C235 | | ECUX1H100CCV | C.CAPACITOR CH 50V 10P | 1 | |
| | | | | | |
| | | | | | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| C236 | | ECUX1H220JCV | C.CAPACITOR CH 50V 22P | 1 | |
| C236 | | ECUX1H330JCV | C.CAPACITOR CH 50V 33P | 1 | |
| C237 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C238 | | ECST0JX226Z | T.CAPACITOR 6.3V 22U | 1 | |
| C239 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C240 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C241-44 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 4 | |
| C245 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C246 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C247 | | ECUX1H473ZFV | C.CAPACITOR CH 50V 0.047U | 1 | |
| C249 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C250 | | ECST0GY226Z | T.CAPACITOR 4V 22U | 1 | |
| C251 | | ECST0GY106Z | T.CAPACITOR 4V 10U | 1 | |
| C252,53 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C254 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C255 | | ECUX1H120JCV | C.CAPACITOR CH 50V 12P | 1 | |
| C256 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C257 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C258 | | ECUM1C185ZFN | C.CAPACITOR CH 16V 1.8U | 1 | |
| C262 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C264 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C265,66 | | ECUX1H270JCV | C.CAPACITOR CH 50V 27P | 2 | |
| C267 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C270 | | ECUX1H270JCV | C.CAPACITOR CH 50V 27P | 1 | |
| C271 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C272 | | ECUX1H270JCV | C.CAPACITOR CH 50V 27P | 1 | |
| C273,74 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C275,76 | | ECUX1H270JCV | C.CAPACITOR CH 50V 27P | 2 | |
| C301 | | ECUX1H820JCV | C.CAPACITOR CH 50V 82P | 1 | |
| C302,03 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 2 | |
| C304 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C305 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C306 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C307 | | ECUX1H151JCV | C.CAPACITOR CH 50V 150P | 1 | |
| C308 | | ECUX1C224ZFV | C.CAPACITOR CH 16V 0.22U | 1 | |
| C309 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C310 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C312 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C314 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C315 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C316 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C317,18 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 2 | |
| C319 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C320 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C323 | | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C324 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C325 | | ECEV0JA101 | E.CAPACITOR 6.3V 100U | 1 | |
| C326 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C327,28 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 2 | |
| C329 | | ECUM1H104ZFN | C.CAPACITOR CH 50V 0.1U | 1 | |
| C330 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C331,32 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C333 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C334,35 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 2 | |
| C336,37 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C338,39 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 2 | |
| C340,41 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 2 | |
| C344 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C345,46 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 2 | |
| C353 | | ECUM1H104ZFN | C.CAPACITOR CH 50V 0.1U | 1 | |
| C371 | | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C701 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C702 | | ECUM1C104KBN | C.CAPACITOR CH 16V 0.1U | 1 | |
| C703 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C711 | | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C719 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C720 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C721 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C722 | | ECUM1H104ZFN | C.CAPACITOR CH 50V 0.1U | 1 | |
| C724,25 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C729 | | ECUM1H104ZFN | C.CAPACITOR CH 50V 0.1U | 1 | |
| C730 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C731 | | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C732 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C737 | | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| | | | | | |
| | | | | | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| C750 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C1001 | ECUM1C335ZFM | C.CAPACITOR CH 16V 3.3U | 1 | |
| C1002 | ECGC1BB4R7 | C.CAPACITOR 8V 4.7U | 1 | |
| C1003 | ECGC0KB8R2 | C.CAPACITOR 8V 8.2U | 1 | |
| C1004 | ECUX1H331JCV | C.CAPACITOR CH 50V 330P | 1 | |
| C1005 | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1006 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1007 | ECEV05A470 | E.CAPACITOR 4V 47U | 1 | |
| C1008 | ECGC0KB8R2 | C.CAPACITOR 8V 8.2U | 1 | |
| C1009 | ECUX1H331JCV | C.CAPACITOR CH 50V 330P | 1 | |
| C1010 | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1011 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1012 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C1013 | ECGC1BB4R7 | C.CAPACITOR 8V 4.7U | 1 | |
| C1014 | ECUX1H561JCV | C.CAPACITOR CH 50V 560P | 1 | |
| C1015 | ECEV1CA470 | E.CAPACITOR 16V 47U | 1 | |
| C1016 | ECEV0GA470 | E.CAPACITOR 4V 47U | 1 | |
| C1016 | ECEV0GA470 | E.CAPACITOR 4V 47U | 1 | |
| C1017 | ECUM1E105ZFM | C.CAPACITOR CH 25V 1U | 1 | |
| C1019 | ECUM1E474ZFM | C.CAPACITOR CH 25V 0.47U | 1 | |
| C1020 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1022 | ECUM1H104ZFN | C.CAPACITOR CH 50V 0.1U | 1 | |
| C1024 | ECUX1C474ZFN | C.CAPACITOR CH 16V 0.47U | 1 | |
| C1025 | ECUM1C104KBN | C.CAPACITOR CH 16V 0.1U | 1 | |
| C1026 | ECEV1HA010 | E.CAPACITOR 50V 1U | 1 | |
| C1027 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C1028 | ECEV1HAR47 | C.CAPACITOR 50V 0.47U | 1 | |
| C1029 | ECUX1H471JCV | C.CAPACITOR CH 50V 470P | 1 | |
| C1030 | ECUX1H822KBV | C.CAPACITOR CH 50V 8200P | 1 | |
| C1031 | ECUX1H471JCV | C.CAPACITOR CH 50V 470P | 1 | |
| C1032 | ECUX1H822KBV | C.CAPACITOR CH 50V 8200P | 1 | |
| C1033-35 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 3 | |
| C1036 | ECUX1H471JCV | C.CAPACITOR CH 50V 470P | 1 | |
| C1037 | ECUX1H822KBV | C.CAPACITOR CH 50V 8200P | 1 | |
| C1040,41 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C1042 | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1043 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1044 | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1045 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1051 | ECUX1C474ZFN | C.CAPACITOR CH 16V 0.47U | 1 | |
| C1057 | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C1058 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1063 | ECUX1H472KBV | C.CAPACITOR CH 50V 4700P | 1 | |
| C1064 | ECEV1CG470S | E.CAPACITOR 16V 47U | 1 | |
| C1066 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C3001 | ECEV0GA470 | E.CAPACITOR 6.3V 47U | 1 | |
| C3002 | ECUX1C105ZFM | C.CAPACITOR CH 16V 1U | 1 | |
| C3003 | ECUX1H180JCV | C.CAPACITOR CH 50V 18P | 1 | |
| C3005 | ECUM1E393KBN | C.CAPACITOR CH 25V 0.039U | 1 | |
| C3006 | ECUX1H180JCV | C.CAPACITOR CH 50V 18P | 1 | |
| C3007 | ECUX1H470JCV | C.CAPACITOR CH 50V 47P | 1 | |
| C3008 | ECUX1H220JCV | C.CAPACITOR CH 50V 22P | 1 | |
| C3011 | ECUX1H560JCV | C.CAPACITOR CH 50V 56P | 1 | |
| C3012 | ECUX1H680JCV | C.CAPACITOR CH 50V 68P | 1 | |
| C3015 | ECUX1H680JCV | C.CAPACITOR CH 50V 68P | 1 | |
| C3022 | ECUX1H390JCV | C.CAPACITOR CH 50V 39P | 1 | |
| C3023 | ECUX1H391JCV | C.CAPACITOR CH 50V 390P | 1 | |
| C3024 | ECUX1H390JCV | C.CAPACITOR CH 50V 39P | 1 | |
| C3027 | ECUX1H220JCV | C.CAPACITOR CH 50V 22P | 1 | |
| C3028 | ECEV0GA471 | E.CAPACITOR 4V 470U | 1 | |
| C3030 | ECUX1H471JCV | C.CAPACITOR CH 50V 470P | 1 | |
| C3031 | ECUX1H390JCV | C.CAPACITOR CH 50V 39P | 1 | |
| C3032 | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C3033 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C3035 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C3037 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C3040 | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C3041 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C3042 | ECUX1H390JCV | C.CAPACITOR CH 50V 39P | 1 | |
| C3043 | ECUX1H221JCV | C.CAPACITOR CH 50V 220P | 1 | |
| C4001 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C4002 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C4002 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C4003 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C4004 | ECEV0JA220 | E.CAPACITOR 6.3V 22U | 1 | |
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| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| C4006 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C4008 | ECEV0JA220 | E.CAPACITOR 6.3V 22U | 1 | |
| C4009 | ECUX1H682KBV | C.CAPACITOR CH 50V 6800P | 1 | |
| C4010 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4011,12 | ECEV05A470 | E.CAPACITOR 4V 47U | 2 | |
| C4013 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C4014 | ECUM1C223KBV | C.CAPACITOR CH 16V 0.022U | 1 | |
| C4015 | ECUX1H682KBV | C.CAPACITOR CH 50V 6800P | 1 | |
| C4016 | ECUM2A472JCM | C.CAPACITOR 100V 4700P | 1 | |
| C4017 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4018 | ECUX1H122KBV | C.CAPACITOR CH 50V 1200P | 1 | |
| C4020 | ECUX1C153KBV | C.CAPACITOR CH 16V 0.015U | 1 | |
| C4021 | ECEV1HA3R3 | E.CAPACITOR 50V 3.3U | 1 | |
| C4022 | ECEV05A470 | E.CAPACITOR 4V 47U | 1 | |
| C4023 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C4024 | ECEV05A470 | E.CAPACITOR 4V 47U | 1 | |
| C4025 | ECEV1CA100 | E.CAPACITOR 16V 10U | 1 | |
| C4026 | ECST1VY334Z | T.CAPACITOR CH 35V 0.33U | 1 | |
| C4027 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C4028 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4029 | ECUX1H222KBV | C.CAPACITOR CH 50V 2200P | 1 | |
| C4030 | ECUX1H562KBV | C.CAPACITOR CH 50V 5600P | 1 | |
| C4031 | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C4032 | ECEV1HA010 | E.CAPACITOR 50V 1U | 1 | |
| C4033 | ECUX1H562KBV | C.CAPACITOR CH 50V 5600P | 1 | |
| C4034 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C4035 | ECEV1HA010 | E.CAPACITOR 50V 1U | 1 | |
| C5001-04 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 4 | |
| C5005-08 | ECUX1H270JCV | C.CAPACITOR CH 50V 27P | 4 | |
| C5009,10 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C5011 | ECUM1E473KBN | C.CAPACITOR CH 25V 0.047U | 1 | |
| C5016 | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C5018 | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C5021 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5022 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C5023,24 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 2 | |
| C5026 | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C5027 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5028 | ECEV05A470 | E.CAPACITOR 4V 47U | 1 | |
| C5501 | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C5502 | ECUX1H680JCV | C.CAPACITOR CH 50V 68P | 1 | |
| C5503 | ECST0JY475Z | T.CAPACITOR 6.3V 4.7U | 1 | |
| C5504 | ECUX1H822KBV | C.CAPACITOR CH 50V 8200P | 1 | |
| C5505 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C5507,08 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 2 | |
| C5510 | ECUX1H820JCV | C.CAPACITOR CH 50V 82P | 1 | |
| C5511 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C5512 | ECUX1H820JCV | C.CAPACITOR CH 50V 82P | 1 | |
| C5513 | ECUX1H221JCV | C.CAPACITOR CH 50V 220P | 1 | |
| C5514 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5515 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C5520 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5521 | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C5522 | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C5523 | ECUX1H820JCV | C.CAPACITOR CH 50V 82P | 1 | |
| C5524 | ECUX1H330JCV | C.CAPACITOR CH 50V 33P | 1 | |
| C5525 | ECUX1H120JCV | C.CAPACITOR CH 50V 12P | 1 | |
| C5526 | ECUX1H060CCV | C.CAPACITOR CH 50V 6P | 1 | |
| C5527 | ECUX1H100CCV | C.CAPACITOR CH 50V 10P | 1 | |
| C5530 | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C5531 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5532 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5533 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C5534-37 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 4 | |
| C5538,39 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C5541 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C5542 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6001-04 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 4 | |
| C6005 | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C6006,07 | ECUX1H120JCV | C.CAPACITOR CH 50V 12P | 2 | |
| C6008 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6010 | ECEV1CA470 | E.CAPACITOR 16V 47U | 1 | |
| C6011 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6014,15 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C6017 | ECUX1H330JCV | C.CAPACITOR CH 50V 33P | 1 | |
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| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| C6018 | ECUX1H220JCV | C.CAPACITOR CH 50V 22P | 1 | |
| C6020 | ECUX1H821JCV | C.CAPACITOR CH 50V 820P | 1 | |
| C6022,23 | ECUX1H221JCV | C.CAPACITOR CH 50V 220P | 2 | |
| C6024,25 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C6027 | ECEVOGA101 | E.CAPACITOR 4V 100U | 1 | |
| C6030 | ECUX1C105ZFM | C.CAPACITOR CH 16V 1U | 1 | |
| C6031,32 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C6038 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6039 | ECUX1H030CCV | C.CAPACITOR CH 50V 3P | 1 | |
| C6039 | ECUX1H030CCV | C.CAPACITOR CH 50V 3P | 1 | |
| C6040 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6060 | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6065 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6100 | ECEV1CA100 | E.CAPACITOR 16V 10U | 1 | |
| C6201 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6203 | ECEV1CA100 | E.CAPACITOR 16V 10U | 1 | |
| C6204,05 | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 2 | |
| C6206 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6207,08 | ECEV1CA100 | E.CAPACITOR 16V 10U | 2 | |
| C6209 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6210 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C6211 | ECUX1H223ZFV | C.CAPACITOR CH 50V 0.022U | 1 | |
| C6213 | ECEV05A470 | E.CAPACITOR 4V 47U | 1 | |
| C6214 | ECUX1H561JCV | C.CAPACITOR CH 50V 560P | 1 | |
| C6221 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C6230 | ECEV0JA220 | P.CAPACITOR 6.3V 22U | 1 | |
| C6297,98 | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 2 | |
| C6299 | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
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| D200 | 1SS355 | DIODE | 1 | |
| D201 | MA728 | DIODE | 1 | |
| D202,03 | 1SS355 | DIODE | 2 | |
| D204 | MA729 | DIODE | 1 | |
| D206-10 | 1SS355 | DIODE | 5 | |
| D211-13 | MA728 | DIODE | 3 | |
| D214,15 | 1SS355 | DIODE | 2 | |
| D301-09 | MA728 | DIODE | 9 | |
| D701 | MA132K | DIODE | 1 | |
| D1002 | SFPB-76 | DIODE | 1 | |
| D1004 | EC10QS04 | DIODE | 1 | |
| D1005 | SB05-05CP | DIODE | 1 | |
| D1006,07 | MA132K | DIODE | 2 | |
| D1008 | MA728 | DIODE | 1 | |
| D1012 | MA133 | DIODE | 1 | |
| D1015 | MA738 | DIODE | 1 | |
| D1062 | SB05-05CP | DIODE | 1 | |
| D1064 | MA728 | DIODE | 1 | |
| D5001 | MA729 | DIODE | 1 | |
| D5502 | 1SS355 | DIODE | 1 | |
| D6002 | 1SS355 | DIODE | 1 | |
| D6008 | 1SS355 | DIODE | 1 | |
| D6011 | MA132WK | DIODE | 1 | |
| D6012,13 | MA132WA | DIODE | 2 | |
| D6015 | MA728 | DIODE | 1 | |
| D6016 | MA133 | DIODE | 1 | |
| D6018 | MA728 | DIODE | 1 | |
| D6201 | 1SS355 | DIODE | 1 | |
| D6300 | MA728 | DIODE | 1 | |
| D6307 | 1SS355 | DIODE | 1 | |
| D6319 | MA133 | DIODE | 1 | |
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| FL201 | ELB3H018 | FILTER | 1 | |
| FL3002 | VLF1057 | FILTER | 1 | |
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| | | | | |
| FP301 | VJS2848D010 | CONNECTOR (FEMALE) 10P | 1 | |
| FP302 | VJS2907D011 | CONNECTOR (FEMALE) 11P | 1 | |
| FP701 | VJS3319D018 | CONNECTOR (FEMALE) 18P | 1 | |
| FP4001 | VJS2958D009 | CONNECTOR (FEMALE) 9P | 1 | |
| FP5001 | VJS2959B013 | CONNECTOR (FEMALE) 13P | 1 | |
| FP6001 | VJS2959B016 | CONNECTOR (FEMALE) 16P | 1 | |
| FP6002 | VJS2959B006 | CONNECTOR (FEMALE) 6P | 1 | |
| FP6005 | VJS3320D022 | CONNECTOR (FEMALE) 22P | 1 | |
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| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| FP6006 | VJS2959D011 | CONNECTOR (FEMALE) 11P | 1 | |
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| | | | | |
| IC201 | VEFH43A | IC | 1 | |
| IC202 | MN5225 | IC | 1 | |
| IC203 | AN2018S | IC | 1 | |
| IC204 | AN2033FAP | IC | 1 | |
| IC205 | SC7S08F | IC | 1 | |
| IC207 | TC7SU04F | IC | 1 | |
| IC208,09 | SC7S08F | IC | 2 | |
| IC211 | SC7S08F | IC | 1 | |
| IC302 | MN67323 | IC | 1 | |
| IC303 | MN67332 | IC | 1 | |
| IC305 | MN1866405M4C | IC | 1 | |
| IC306 | L7A1362 | IC | 1 | |
| IC307,08 | M62353GP | IC | 2 | |
| IC309 | X25040S-3C70 | IC | 1 | |
| IC310 | ZA4035 | IC | 1 | |
| IC315 | MN65703T | IC | 1 | |
| IC705 | BA6950FS | IC | 1 | |
| IC706,07 | LM324DB | IC | 2 | |
| IC708 | TB6512AF | IC | 1 | |
| IC1001 | BA9706K | IC | 1 | |
| IC3001 | VEFH32E | IC | 1 | |
| IC3002 | TC7W04F | IC | 1 | |
| IC4001 | BA7758FS | IC | 1 | |
| IC5001 | AN3355FHP | IC | 1 | |
| IC5501 | LC89970MD | IC | 1 | |
| IC6001 | MN6755324M4H | IC | 1 | |
| IC6002 | S3510ANFJ | IC | 1 | |
| IC6003 | UPD6462GS613 | IC | 1 | |
| IC6004 | MN4066BS | IC | 1 | |
| IC6005 | BA6289F | IC | 1 | |
| IC6006 | TA75W393FU | IC | 1 | |
| IC6007 | RH5RE38AA | IC | 1 | |
| IC6008 | PST9133NR | IC | 1 | |
| IC6009 | TC4S66F | IC | 1 | |
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| | | | | |
| L201 | ELJPC6R8KB | COIL 6.8UH | 1 | |
| L202 | VLP0146 | INDUCTOR | 1 | |
| L203-06 | ELJFC150JB | COIL 15UH | 4 | |
| L208 | VLP0146 | INDUCTOR | 1 | |
| L209 | VLQ0426J680 | COIL 68UH | 1 | |
| L210 | ELJFC150JB | COIL 15UH | 1 | |
| L211 | VLQ0426J680 | COIL 68UH | 1 | |
| L215 | VLP0154 | INDUCTOR | 1 | |
| L220 | VLP0146 | INDUCTOR | 1 | |
| L230,31 | VLP0154 | INDUCTOR | 2 | |
| L301 | VLQ0426J120 | COIL 12UH | 1 | |
| L302 | ELJPC6R8KB | COIL 6.8UH | 1 | |
| L303 | VLP0140 | INDUCTOR | 1 | |
| L304-08 | ELJPC6R8KB | COIL 6.8UH | 5 | |
| L309 | VLP0146 | INDUCTOR | 1 | |
| L310,11 | ELJPC6R8KB | COIL 6.8UH | 2 | |
| L312 | ELJPA6R8MF | COIL H | 1 | |
| L313 | VLP0146 | INDUCTOR | 1 | |
| L315-18 | ELJPC6R8KB | COIL 6.8UH | 4 | |
| L321 | ELJPC6R8KB | COIL 6.8UH | 1 | |
| L701 | ELJPC6R8KB | COIL 6.8UH | 1 | |
| L703 | ELJPC6R8KB | COIL 6.8UH | 1 | |
| L706,07 | ELJPC6R8KB | COIL 6.8UH | 2 | |
| L1001 | ELL04T509R | COIL H | 1 | |
| L1002 | ELL04T016R | COIL H | 1 | |
| L1003 | ELC6UB4R7M | COIL | 1 | |
| L1006 | ELJPA470KB | COIL | 1 | |
| L1007 | ELL04T045R | COIL H | 1 | |
| L1008 | ELC6UB4R7M | COIL | 1 | |
| L1009 | ELJPA100KB | COIL | 1 | |
| L1010,11 | ELJPA101KB | COIL | 2 | |
| L1012-14 | ELJPA100KB | COIL | 3 | |
| L1015 | ELJPA150KB | COIL | 1 | |
| L1062 | ELL04T035R | TRANSFORMER | 1 | |
| L3001 | VLQ0426J560 | COIL 56UH | 1 | |
| L3002 | ELJPA101KB | COIL | 1 | |
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| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| L3003 | | ELJFA820JB | COIL | 1 | |
| L3005 | | ELJPA121KF | COIL H | 1 | |
| L3006 | | ELJFA121JB | COIL | 1 | |
| L3011 | | VLQ0426J330 | COIL 33UH | 1 | |
| L3012 | | ELJFC150JB | COIL 15UH | 1 | |
| L3013 | | ELJFA151JB | COIL | 1 | |
| L3014 | | ELJFA220JB | COIL | 1 | |
| L3015 | | ELJPA101KB | COIL | 1 | |
| L3016 | | VLQ0426J470 | COIL 47UH | 1 | |
| L3021 | | ELJPA101KB | COIL | 1 | |
| L3022 | | VLQ0426J330 | COIL 33UH | 1 | |
| L4005 | | ELJPA101KB | COIL | 1 | |
| L5002,03 | | ELJPA101KB | COIL | 2 | |
| L5005-07 | | ELJPA101KB | COIL | 3 | |
| L5501 | | ELJPA470KB | COIL | 1 | |
| L5502 | | ELJPA150KB | COIL | 1 | |
| L5503 | | VLQ0426J470 | COIL 47UH | 1 | |
| L5504 | | VLQ0426J270 | COIL 27UH | 1 | |
| L5505,06 | | ELJFC100JB | COIL 10UH | 2 | |
| L5507 | | ELJPA150KB | COIL | 1 | |
| L5511 | | ELJFA101JB | COIL | 1 | |
| L6001 | | ELJFA330JB | COIL | 1 | |
| L6002 | | ELJPA101KB | COIL | 1 | |
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| P303 | | VJP3125B009 | CONNECTOR (MALE) 9P | 1 | |
| P4004 | | VJP3172B004 | CONNECTOR (MALE) 4P | 1 | |
| | | | | | |
| | | | | | |
| PP201 | | VJP3359D012 | CONNECTOR (MALE) 12P | 1 | |
| PP302 | | VJP2962A024 | CONNECTOR (MALE) 24P | 1 | |
| PP4002 | | VJP3295D010 | CONNECTOR (MALE) 10P | 1 | |
| PP6004 | | VJP3358C016 | CONNECTOR (MALE) 16P | 1 | |
| | | | | | |
| | | | | | |
| PS1001 | | VJS2961A030 | CONNECTOR (FEMALE) 30P | 1 | |
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| | | | | | |
| Q201 | | 2SD1819 | TRANSISTOR | 1 | |
| Q204 | | 2SB1462 | TRANSISTOR | 1 | |
| Q206 | | 2SC4627 | TRANSISTOR | 1 | |
| Q207 | | XP1401 | TRANSISTOR-RESISTOR | 1 | |
| Q208 | | XP4601 | TRANSISTOR-RESISTOR | 1 | |
| Q209-11 | | XP4654 | TRANSISTOR-TRANSISTOR | 3 | |
| Q301,02 | | 2SD2216 | TRANSISTOR | 2 | |
| Q303 | | 2SD1030 | TRANSISTOR | 1 | |
| Q304 | | XP4601 | TRANSISTOR-RESISTOR | 1 | |
| Q704 | | 2SD601A | TRANSISTOR | 1 | |
| Q705 | | 2SD2216 | TRANSISTOR | 1 | |
| Q1001 | | 2SA1731-R | TRANSISTOR | 1 | |
| Q1002,03 | | 2SB798 | TRANSISTOR | 2 | |
| Q1004 | | 2SD2210 | TRANSISTOR | 1 | |
| Q1005 | | 2SB1073 | TRANSISTOR | 1 | |
| Q1006 | | 2SD1819 | TRANSISTOR | 1 | |
| Q1062 | | 2SB798 | TRANSISTOR | 1 | |
| Q3001 | | XN4501 | TRANSISTOR-RESISTOR | 1 | |
| Q3002 | | XN4401 | TRANSISTOR-RESISTOR | 1 | |
| Q3005 | | 2SB1462 | TRANSISTOR | 1 | |
| Q3006 | | 2SB970X | TRANSISTOR | 1 | |
| Q3011,12 | | 2SC4627 | TRANSISTOR | 2 | |
| Q3013 | | 2SD2216 | TRANSISTOR | 1 | |
| Q3020,21 | | 2SB1462 | TRANSISTOR | 2 | |
| Q3022 | | 2SC4627 | TRANSISTOR | 1 | |
| Q3204 | | XP4601 | TRANSISTOR-RESISTOR | 1 | |
| Q4001 | | 2SD2216 | TRANSISTOR | 1 | |
| Q4002 | | 2SD602A-R | TRANSISTOR | 1 | |
| Q4003 | | 2SB1219 | TRANSISTOR | 1 | |
| Q4004 | | 2SB1462 | TRANSISTOR | 1 | |
| Q4005 | | XP6501 | TRANSISTOR-RESISTOR | 1 | |
| Q4006 | | 2SD2216 | TRANSISTOR | 1 | |
| Q4009 | | 2SD2216 | TRANSISTOR | 1 | |
| Q5001,02 | | XN4504 | TRANSISTOR-TRANSISTOR | 2 | |
| Q5003 | | 2SA812 | TRANSISTOR | 1 | |
| Q5502 | | 2SB1462 | TRANSISTOR | 1 | |
| Q5503 | | 2SD2216 | TRANSISTOR | 1 | |
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| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| Q5504 | | 2SB1462 | TRANSISTOR | 1 | |
| Q5505 | | 2SD2216 | TRANSISTOR | 1 | |
| Q5506 | | 2SC4627 | TRANSISTOR | 1 | |
| Q5510,11 | | 2SD2216 | TRANSISTOR | 2 | |
| Q6002 | | 2SD2216 | TRANSISTOR | 1 | |
| Q6004 | | 2SD2216 | TRANSISTOR | 1 | |
| Q6005 | | XP6501 | TRANSISTOR-RESISTOR | 1 | |
| Q6006 | | 2SB1462 | TRANSISTOR | 1 | |
| Q6044,45 | | XP4601 | TRANSISTOR-RESISTOR | 2 | |
| Q6201 | | 2SB1462 | TRANSISTOR | 1 | |
| Q6202 | | 2SC4627 | TRANSISTOR | 1 | |
| Q6202 | | 2SC4627 | TRANSISTOR | 1 | |
| | | | | | |
| | | | | | |
| QR301,02 | | UN9212 | TRANSISTOR-RESISTOR | 2 | |
| QR303-06 | | UN9213 | TRANSISTOR-RESISTOR | 4 | |
| QR307 | | XP1212 | TRANSISTOR-TRANSISTOR | 1 | |
| QR701 | | UN9211 | TRANSISTOR-RESISTOR | 1 | |
| QR710 | | UN9213 | TRANSISTOR-RESISTOR | 1 | |
| QR1006 | | UN2130X | TRANSISTOR-RESISTOR | 1 | |
| QR1061 | | UN9115 | TRANSISTOR-RESISTOR | 1 | |
| QR3001 | | UN9212 | TRANSISTOR-RESISTOR | 1 | |
| QR3003 | | UN9213 | TRANSISTOR-RESISTOR | 1 | |
| QR3004,05 | | UN9212 | TRANSISTOR-RESISTOR | 2 | |
| QR4002 | | UN9213 | TRANSISTOR-RESISTOR | 1 | |
| QR5501 | | UN9213 | TRANSISTOR-RESISTOR | 1 | |
| QR6001 | | UN2130X | TRANSISTOR-RESISTOR | 1 | |
| QR6002 | | UN9213 | TRANSISTOR-RESISTOR | 1 | |
| QR6003 | | UN9112 | TRANSISTOR-RESISTOR | 1 | |
| QR6004 | | XP4115 | TRANSISTOR-RESISTOR | 1 | |
| QR6007 | | UN9211 | TRANSISTOR-RESISTOR | 1 | |
| QR6008 | | UN9113 | TRANSISTOR-RESISTOR | 1 | |
| QR6009 | | UN9213 | TRANSISTOR-RESISTOR | 1 | |
| QR6010 | | XP1213 | TRANSISTOR-RESISTOR | 1 | |
| QR6012 | | UN9115 | TRANSISTOR-RESISTOR | 1 | |
| QR6013 | | UN9213 | TRANSISTOR-RESISTOR | 1 | |
| QR6014 | | UN921D | TRANSISTOR-RESISTOR | 1 | |
| QR6015 | | UN9215 | TRANSISTOR-RESISTOR | 1 | |
| QR6018 | | UN921E | TRANSISTOR-RESISTOR | 1 | |
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| | | | | | |
| R200 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R201 | | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R202 | | ERJ3GEYJ221 | M.RESISTOR CH 1/16W 220 | 1 | |
| R203 | | ERJ3GEYJ471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R204 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R205 | | ERJ3GEYJ181 | M.RESISTOR CH 1/16W 180 | 1 | |
| R207 | | ERJ3GEYJ221 | M.RESISTOR CH 1/16W 220 | 1 | |
| R208,09 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 2 | |
| R210 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R211 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R213,14 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 2 | |
| R215,16 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R218 | | ERJ3GEYJ221 | M.RESISTOR CH 1/16W 220 | 1 | |
| R219 | | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R220 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R223 | | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R224 | | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R226 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R227,28 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R231 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R232 | | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R233 | | ERJ3GEYJ221 | M.RESISTOR CH 1/16W 220 | 1 | |
| R236 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R237 | | ERJ3GEYJ682 | M.RESISTOR CH 1/16W 6.8K | 1 | |
| R238 | | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R239 | | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R241,42 | | ERJ3GEYJ682 | M.RESISTOR CH 1/16W 6.8K | 2 | |
| R243 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R244 | | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R245 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R246 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R247 | | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R249 | | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R250 | | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
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| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| R251 | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R252 | ERJ3GEYJ152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R253 | ERJ3GEYJ823 | M.RESISTOR CH 1/16W 82K | 1 | |
| R254 | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R255 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R256 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R257 | ERJ3GEYJ184 | M.RESISTOR CH 1/16W 180K | 1 | |
| R258 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R260 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R261 | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R262 | ERJ8GEYJ4R7 | M.RESISTOR CH 1/8W 4.7 | 1 | |
| R262 | ERJ8GEYJ4R7 | M.RESISTOR CH 1/8W 4.7 | 1 | |
| R263,64 | ERJ3GEYJ221 | M.RESISTOR CH 1/16W 220 | 2 | |
| R265 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R266 | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R267 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R268 | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R269,70 | ERJ3GEYJ330 | M.RESISTOR CH 1/16W 33 | 2 | |
| R271 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R272,73 | ERJ3GEYJ330 | M.RESISTOR CH 1/16W 33 | 2 | |
| R274 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R275 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R276,77 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R278 | ERJ3GEYJ221 | M.RESISTOR CH 1/16W 220 | 1 | |
| R279 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R282 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R285,86 | ERJ3GEYJ330 | M.RESISTOR CH 1/16W 33 | 2 | |
| R287,88 | ERJ3GEYJ820 | M.RESISTOR CH 1/16W 82 | 2 | |
| R290,91 | ERJ3GEYJ330 | M.RESISTOR CH 1/16W 33 | 2 | |
| R292,93 | ERJ3GEYJ820 | M.RESISTOR CH 1/16W 82 | 2 | |
| R298 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R299 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R301 | ERJ3GEYJ271 | M.RESISTOR CH 1/16W 270 | 1 | |
| R302 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R304 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R305 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R306,07 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 2 | |
| R308 | ERJ3GEYJ393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R309 | ERJ3GEYJ4R7 | M.RESISTOR CH 1/16W 4.7 | 1 | |
| R310 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R311 | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R312,13 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 2 | |
| R314-17 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 4 | |
| R318,19 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R320 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R321-23 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 3 | |
| R324 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R325 | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R326 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R327 | ERJ3GEYJ395 | M.RESISTOR CH 1/16W 3.9M | 1 | |
| R328 | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R329 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R330 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R331,32 | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 2 | |
| R333 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R334,35 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R336 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R337 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R338 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R339 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R340-42 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 3 | |
| R343 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R344 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R345,46 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 2 | |
| R347 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R348 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R349 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R350 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R351,52 | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 2 | |
| R353,54 | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 2 | |
| R355,56 | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 2 | |
| R357,58 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R359-62 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 4 | |
| R363 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R364 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| R364 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R365,66 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R369 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R370 | ERJ3GEYJ152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R371 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R372 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R373 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R374 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R702 | VRE0071E102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R703 | VRE0071E152 | M.RESISTOR CH 1/10W 1.5K | 1 | |
| R704 | VRE0071E471 | M.RESISTOR CH 1/10W 470 | 1 | |
| R705 | ERJ3GEYJ220 | M.RESISTOR CH 1/16W 22 | 1 | |
| R716 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R717 | ERJ3GEYJ221 | M.RESISTOR CH 1/16W 220 | 1 | |
| R718 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R719 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R720,21 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R722 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R723 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R724 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R725 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R726 | ERJ3GEYG202 | M.RESISTOR CH 1/16W 2K | 1 | |
| R727 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R728 | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R729 | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R730 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R731,32 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 2 | |
| R733 | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R734,35 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 2 | |
| R736 | ERJ3GEYJ824 | M.RESISTOR CH 1/16W 820K | 1 | |
| R737 | ERJ3GEYJ394 | M.RESISTOR CH 1/16W 390K | 1 | |
| R738 | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R739 | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R740 | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R741 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R742 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R743 | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R744 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R745 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R746 | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R747,48 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R749 | ERJ3GEYG103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R750 | ERJ3GEYG303 | M.RESISTOR CH 1/16W 30K | 1 | |
| R752 | ERJ3GEYJ181 | M.RESISTOR CH 1/16W 180 | 1 | |
| R756 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R757 | ERJ3GEYG113 | M.RESISTOR CH 1/16W 11K | 1 | |
| R758 | ERJ3GEYG183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R760 | ERJ3GEYJ3R3 | M.RESISTOR CH 1/16W 3.3 | 1 | |
| R761 | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R764 | ERJ3GEYJ3R3 | M.RESISTOR CH 1/16W 3.3 | 1 | |
| R777 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R778 | VRE0071E223 | M.RESISTOR CH 1/10W 22K | 1 | |
| R779 | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R781 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R782 | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R1001 | VRE0067G822 | M.RESISTOR CH 1/10W 8.2K | 1 | |
| R1002 | VRE0067G272 | M.RESISTOR CH 1/10W 2.7K | 1 | |
| R1003 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R1004 | ERJ3GEYJ391 | M.RESISTOR CH 1/16W 390 | 1 | |
| R1005 | VRE0067G562 | M.RESISTOR CH 1/10W 5.6K | 1 | |
| R1006 | VRE0067G272 | M.RESISTOR CH 1/10W 2.7K | 1 | |
| R1007 | ERJ8GEYJ330 | M.RESISTOR CH 1/8W 33 | 1 | |
| R1008 | VRE0067G103 | M.RESISTOR CH 1/10W 10K | 1 | |
| R1009 | VRE0067G152 | M.RESISTOR CH 1/10W 1.5K | 1 | |
| R1010 | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R1012 | VRE0067G20C | M.RESISTOR CH 1/10W | 1 | |
| R1013 | VRE0067G393 | M.RESISTOR CH 1/10W 39K | 1 | |
| R1014,15 | VRE0067G182 | M.RESISTOR CH 1/10W 1.8K | 2 | |
| R1016 | VRE0034E153 | M.RESISTOR CH 1/10W 15K | 1 | |
| R1017 | ERJ6GEYJ102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R1018 | ERJ3GEYJ151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R1019 | ERJ6GEYJ102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R1020 | ERJ3GEYJ151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R1021 | ERJ3GEYJ330 | M.RESISTOR CH 1/16W 33 | 1 | |
| R1022 | ERJ3GEYJ150 | M.RESISTOR CH 1/16W 15 | 1 | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| R1023 | | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R1024 | | ERJ3GEYJ470 | M.RESISTOR CH 1/16W 47 | 1 | |
| R1025 | | ERJ6GEYJ102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R1026 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R1027 | | ERJ3GEYJ151 | M.RESISTOR CH 1/16W 150 | 1 | |
| R1028 | | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R1029 | | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R1033 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R1035 | | ERJ3GEYJ470 | M.RESISTOR CH 1/16W 47 | 1 | |
| R1038 | | VRE0034E750 | M.RESISTOR CH 1/10W 75 | 1 | |
| R1039 | | VRE0034E431 | M.RESISTOR CH 1/10W 430 | 1 | |
| R1040 | | VRE0034E151 | M.RESISTOR CH 1/10W 150 | 1 | |
| R1051 | | VRE0071E273 | M.RESISTOR CH 1/10W 27K | 1 | |
| R1052 | | VRE0071E473 | M.RESISTOR CH 1/10W 47K | 1 | |
| R1062 | | ERJ6GEYJ391 | M.RESISTOR CH 1/10W 390 | 1 | |
| R1063 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R1065 | | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R1071 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R1072 | | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R1073 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R1080 | | ERJ8GEY0R00 | M.RESISTOR CH 1/8W 0 | 1 | |
| R3001 | | ERJ3GEYJ750 | M.RESISTOR CH 1/16W 75 | 1 | |
| R3002 | | ERJ3GEYJ225 | M.RESISTOR CH 1/16W 2.2M | 1 | |
| R3003,04 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 2 | |
| R3005 | | ERJ3GEYJ271 | M.RESISTOR CH 1/16W 270 | 1 | |
| R3007 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R3008,09 | | ERJ3GEYJ152 | M.RESISTOR CH 1/16W 1.5K | 2 | |
| R3010 | | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R3015,16 | | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 2 | |
| R3017 | | ERJ3GEYJ391 | M.RESISTOR CH 1/16W 390 | 1 | |
| R3018 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R3019 | | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R3021,22 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R3023,24 | | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 2 | |
| R3025,26 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 2 | |
| R3027 | | ERJ3GEYJ152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R3028 | | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 1 | |
| R3029 | | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R3032 | | ERJ3GEYJ152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R3035 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R3036 | | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R3037 | | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R3038 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R3040 | | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |
| R3050 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R3058 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R3059 | | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R3060 | | ERJ3GEYJ680 | M.RESISTOR CH 1/16W 68 | 1 | |
| R3062 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R3063,64 | | ERJ3GEYJ122 | M.RESISTOR CH 1/16W 1.2K | 2 | |
| R3071,72 | | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 2 | |
| R3073 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R3074 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R3081 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R3082 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R3086 | | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R3090 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R3238 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R3240-42 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 3 | |
| R3243 | | ERJ3GEYJ152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R4001 | | ERJ3GEYJ100 | M.RESISTOR CH 1/16W 10 | 1 | |
| R4002 | | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R4003 | | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |
| R4004 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R4006 | | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R4007 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R4008 | | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R4009 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R4010 | | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R4011 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R4012 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R4013 | | ERJ3GEYJ680 | M.RESISTOR CH 1/16W 68 | 1 | |
| R4014 | | VRE0071E133 | M.RESISTOR CH 1/10W 13K | 1 | |
| R4016,17 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 2 | |
| R4018 | | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| R4019 | | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R4020 | | VRE0071E431 | M.RESISTOR CH 1/10W 430 | 1 | |
| R4021 | | VRE0071E562 | M.RESISTOR CH 1/10W 5.6K | 1 | |
| R4022 | | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R4023 | | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 1 | |
| R4024 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R4025 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R4026 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R4027,28 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R4029 | | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R4030,31 | | ERJ3GEYJ183 | M.RESISTOR CH 1/16W 18K | 2 | |
| R4032 | | VRE0071E272 | M.RESISTOR CH 1/10W 2.7K | 1 | |
| R4033 | | VRE0071E152 | M.RESISTOR CH 1/10W 1.5K | 1 | |
| R4034,35 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 2 | |
| R4036,37 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 2 | |
| R4040 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R4048 | | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R5001 | | ERJ3GEYJ100 | M.RESISTOR CH 1/16W 10 | 1 | |
| R5002 | | ERJ3GEYJ393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R5003 | | ERJ3GEYJ680 | M.RESISTOR CH 1/16W 68 | 1 | |
| R5004 | | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R5005 | | ERJ3GEYJ393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R5006 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R5007 | | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R5008 | | ERJ3GEYJ4R7 | M.RESISTOR CH 1/16W 4.7 | 1 | |
| R5009 | | ERJ3GEYJ680 | M.RESISTOR CH 1/16W 68 | 1 | |
| R5010 | | ERJ3GEYJ113 | M.RESISTOR CH 1/16W 11K | 1 | |
| R5011 | | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R5013 | | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R5014 | | ERJ3GEYJ393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R5015 | | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R5501,02 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R5503 | | ERJ3GEYJ471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R5504 | | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R5505 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R5507 | | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R5510 | | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R5511 | | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R5512 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R5513 | | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R5514,15 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R5516 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R5517 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R5518 | | ERJ3GEYJ182 | M.RESISTOR CH 1/16W 1.8K | 1 | |
| R5520,21 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R5526 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R5527 | | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R5528 | | ERJ3GEYJ822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R5529 | | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R5530,31 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R5532 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R5533 | | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R5534 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R5537 | | VRE0071E271 | M.RESISTOR CH 1/10W 270 | 1 | |
| R5540 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R5541 | | ERJ3GEYJ823 | M.RESISTOR CH 1/16W 82K | 1 | |
| R5543,44 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 2 | |
| R5546,47 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R5548 | | VRE0071E271 | M.RESISTOR CH 1/10W 270 | 1 | |
| R5549 | | VRE0071E153 | M.RESISTOR CH 1/10W 15K | 1 | |
| R5550,51 | | ERJ3GEYJ750 | M.RESISTOR CH 1/16W 75 | 2 | |
| R5552,53 | | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 2 | |
| R5554 | | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |
| R5556 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R5560-63 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 4 | |
| R5565 | | ERJ3GEYJ822 | M.RESISTOR CH 1/16W 8.2K | 1 | |
| R6002 | | ERJ3GEYJ152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R6003 | | ERJ3GEYJ274 | M.RESISTOR CH 1/16W 270K | 1 | |
| R6004 | | ERJ3GEYJ273 | M.RESISTOR CH 1/16W 27K | 1 | |
| R6005-10 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 6 | |
| R6011 | | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6012 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6013 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6014 | | ERJ3GEYJ105 | M.RESISTOR CH 1/16W 1M | 1 | |
| R6015 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| R6016 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R6017 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6018 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6019 | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R6020 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6021 | ERJ8GEYJ120 | M.RESISTOR CH 1/8W 12 | 1 | |
| R6022 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6024 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6025 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6026 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6027,28 | ERJ6GEYJ221 | M.RESISTOR CH 1/10W 220 | 2 | |
| R6029 | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R6030 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6031 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6032,33 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6034 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R6035 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6037 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6037 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6038 | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R6039 | ERJ8GEYJ2R2 | M.RESISTOR CH 1/8W 2.2 | 1 | |
| R6040 | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R6042 | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R6043 | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R6044 | VRE0034E223 | M.RESISTOR CH 1/10W 22K | 1 | |
| R6045 | VRE0034E333 | M.RESISTOR CH 1/10W 33K | 1 | |
| R6046 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6048,49 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 2 | |
| R6050 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6053 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6054 | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R6055 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6056 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6057 | ERJ3GEYJ393 | M.RESISTOR CH 1/16W 39K | 1 | |
| R6060 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6061 | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R6063,64 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6065,66 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 2 | |
| R6070 | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R6071 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6073 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6074 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6075 | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R6076 | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R6077,78 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6081 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6081 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6090,91 | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 2 | |
| R6108 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6111 | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R6112 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R6113 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6120,21 | ERJ6GEY0R00 | M.RESISTOR CH 1/10W 0 | 2 | |
| R6130 | ERJ3GEYJ821 | M.RESISTOR CH 1/16W 820 | 1 | |
| R6131 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6133 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6134 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6135 | ERJ3GEYJ121 | M.RESISTOR CH 1/16W 120 | 1 | |
| R6136 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6137,38 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 2 | |
| R6139 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6142 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6143 | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R6144 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6145 | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R6149 | ERJ3GEYJ153 | M.RESISTOR CH 1/16W 15K | 1 | |
| R6150 | ERJ3GEYJ272 | M.RESISTOR CH 1/16W 2.7K | 1 | |
| R6151 | ERJ3GEYJ334 | M.RESISTOR CH 1/16W 330K | 1 | |
| R6152 | ERJ3GEYJ124 | M.RESISTOR CH 1/16W 120K | 1 | |
| R6153 | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R6154 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R6155 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6160 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6161 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R6168 | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |

| Ref.No. | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|
| R6170 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6199 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6201 | ERJ3GEYJ394 | M.RESISTOR CH 1/16W 390K | 1 | |
| R6203 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6205 | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R6206,07 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 2 | |
| R6208 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6209 | ERJ3GEYJ181 | M.RESISTOR CH 1/16W 180 | 1 | |
| R6210,11 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 2 | |
| R6212 | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R6213 | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R6214 | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R6215 | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R6231 | ERJ8GEYJ2R2 | M.RESISTOR CH 1/8W 2.2 | 1 | |
| R6235 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R6235 | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R6299 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6309-11 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 3 | |
| R6318 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6333,34 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 2 | |
| R6342 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6343 | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R6344 | ERJ3GEYJ471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R6345 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R6346 | ERJ3GEYJ471 | M.RESISTOR CH 1/16W 470 | 1 | |
| R6347 | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R6348 | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| | | | | |
| | | | | |
| RA301-04 | EXBV8V102J | RESISTOR-RESISTOR | 4 | |
| RA305,06 | EXBV8V473J | RESISTOR-RESISTOR | 2 | |
| RA308-12 | EXBV8V102J | RESISTOR-RESISTOR | 5 | |
| RA314,15 | EXBV8V102J | RESISTOR-RESISTOR | 2 | |
| RA320-31 | EXBV8V102J | RESISTOR-RESISTOR | 12 | |
| RA6001 | EXBV4V103J | RESISTOR-RESISTOR | 1 | |
| RA6003 | EXBV4V102J | RESISTOR-RESISTOR | 1 | |
| RA6004-07 | EXBV8V102J | RESISTOR-RESISTOR | 4 | |
| RA6008 | EXBV4V683J | RESISTOR-RESISTOR | 1 | |
| RA6009 | EXBV8V103J | RESISTOR-RESISTOR | 1 | |
| RA6010,11 | EXBV4V683J | RESISTOR-RESISTOR | 2 | |
| | | | | |
| | | | | |
| T1001 | ELL04T064R | TRANSFORMER | 1 | |
| T1002 | VTP0357 | TRANSFORMER | 1 | |
| T4001 | EIQ6QB008T | TRANSFORMER | 1 | |
| | | | | |
| | | | | |
| TH701 | VRE0083 | M.RESISTOR CH 1/10W | 1 | |
| | | | | |
| | | | | |
| VR3001 | EVM7JGA00B23 | V.RESISTOR | 1 | |
| VR3003 | EVM7JSX10B52 | V.RESISTOR | 1 | |
| | | | | |
| | | | | |
| X201 | VSX0650 | CRYSTAL OSCILLATOR | 1 | |
| X301 | VSX0669 | CRYSTAL OSCILLATOR | 1 | |
| X5501 | VSX0563 | CRYSTAL OSCILLATOR | 1 | |
| X6001 | VSX0461 | CRYSTAL OSCILLATOR | 1 | |
| X6002 | VSX0601 | CRYSTAL OSCILLATOR | 1 | |
| | | | | |
| | | | | |
| | | MISCELLANEOUS | | |
| | VSC3855 | POWER SHIELD COVER (TOP) | 1 | |
| | VSC3906 | POWER SHIELD COVER (BOTT.) | 1 | |
| | VSC4082 | H.A. SHIELD COVER (TOP) | 1 | |
| | VSC4083 | H.A. SHIELD COVER (BOTTOM) | 1 | |
| | VSC4151 | CAMERA SHIELD COVER (BOTT.) | 1 | |
| | VM22383 | CAMERA SHIELD BARRIER | 1 | |
| | VSC4152 | CAMERA SHIELD COVER (TOP) | 1 | |
| | VSC4183 | POWER SHIELD PLATE | 1 | |
| | VM22371 | POWER SHIELD BARRIER | 1 | |
| | VM22278 | CAMERA BARRIER | 1 | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| | ■ | VEP02418A | DRIVE C.B.A. | | (RTL) |
| | | | | | |
| | | | | | |
| C2001 | | ECUM1C564KBM | C.CAPACITOR CH 16V 0.56U | 1 | |
| C2002 | | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C2003 | | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C2004 | | ECUX1H470JCV | C.CAPACITOR CH 50V 47P | 1 | |
| C2005 | | ECUX1H152KBV | C.CAPACITOR CH 50V 1500P | 1 | |
| C2007 | | ECUM1C105KBM | C.CAPACITOR CH 16V 1U | 1 | |
| C2009 | | ECUM1C104KBN | C.CAPACITOR CH 16V 0.1U | 1 | |
| C2011 | | ECUX1E223KBV | C.CAPACITOR CH 25V 0.023U | 1 | |
| C2012 | | ECUX1C473KXV | C.CAPACITOR CH 16V 0.047U | 1 | |
| C2014 | | ECST1AY475Z | T.CAPACITOR 16V 4.7U | 1 | |
| C2015-17 | | ECUM1C104KBN | C.CAPACITOR CH 16V 0.1U | 3 | |
| C2018 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C2020-22 | | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 3 | |
| C2023 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C2024 | | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C2025-27 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 3 | |
| C2028 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C2029-32 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 4 | |
| C2033 | | ECUM1C185ZFN | C.CAPACITOR CH 16V 1.8U | 1 | |
| C2036 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C2040-42 | | ECUX1C473KXV | C.CAPACITOR CH 16V 0.047U | 3 | |
| | | | | | |
| | | | | | |
| FP2001 | | VJS2848D007 | CONNECTOR (FEMALE) 7P | 1 | |
| FP2002 | | VJS2958B018 | CONNECTOR (FEMALE) 18P | 1 | |
| FP2003 | | VJS3552D023 | CONNECTOR (FEMALE) 23P | 1 | |
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| | | | | | |
| IC2001 | | TB6513AF | IC | 1 | |
| IC2002,03 | | UN224 | IC | 2 | |
| | | | | | |
| | | | | | |
| QR2001 | | ON2170-LM | TRANSISTOR-RESISTOR | 1 | |
| QR2002 | | UN5215 | TRANSISTOR-RESISTOR | 1 | |
| | | | | | |
| | | | | | |
| R2001 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R2002 | | ERJ3GEYJ224 | M.RESISTOR CH 1/16W 220K | 1 | |
| R2003 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R2004 | | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R2005 | | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R2006 | | ERJ3GEYJ474 | M.RESISTOR CH 1/16W 470K | 1 | |
| R2007 | | ERJ8GEYJR47 | M.RESISTOR CH 1/8W 0.47 | 1 | |
| R2008 | | ERJ8GEYJR33 | M.RESISTOR CH 1/8W 0.33 | 1 | |
| R2009 | | ERJ3GEYJ561 | M.RESISTOR CH 1/16W 560 | 1 | |
| R2010 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R2011 | | ERJ6GEYJ271 | M.RESISTOR CH 1/10W 270 | 1 | |
| R2012 | | ERJ3GEYJ684 | M.RESISTOR CH 1/16W 680K | 1 | |
| R2014 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R2015 | | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R2016 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R2017 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R2018 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R2019,20 | | ERJ3GEYJ471 | M.RESISTOR CH 1/16W 470 | 2 | |
| R2021 | | ERJ6GEYJ101 | M.RESISTOR CH 1/10W 100 | 1 | |
| R2022 | | ERJ8GEYJR33 | M.RESISTOR CH 1/8W 0.33 | 1 | |
| R2040-42 | | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 3 | |
| R2045,46 | | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 2 | |
| R2050 | | ERJ3GEYJ564 | M.RESISTOR CH 1/16W 560K | 1 | |
| | | | | | |
| | | | | | |
| | | | MISCELLANEOUS | | |
| | | VMD1842 | REEL SENSOR STATOR | 1 | |
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| | ■ | VEP28102A | E.V.F. (A) C.B.A. | | (RTL) |
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| | | | | | |
| C801 | | ECST1AC226Z | T.CAPACITOR 10V 22U | 1 | |
| C802 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C803 | | ECUX1H821JCV | C.CAPACITOR CH 50V 820P | 1 | |
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| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| C804 | | ECUX1C473KBV | C.CAPACITOR CH 16V 0.047U | 1 | |
| C805 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C806 | | ECUX1H332KBV | C.CAPACITOR CH 50V 3300P | 1 | |
| C809 | | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C810 | | ECEV1CA470F | E.CAPACITOR 16V 47U | 1 | |
| C812 | | ECEV1EA100 | E.CAPACITOR 25V 10U | 1 | |
| C813 | | ECST0JX156Z | T.CAPACITOR 6.3V 15U | 1 | |
| C814 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C815,16 | | ECUX1H473ZFV | C.CAPACITOR CH 50V 0.047U | 2 | |
| C817 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C818 | | ECST1AY475Z | T.CAPACITOR 16V 4.7U | 1 | |
| C819 | | ECEV1CA470F | E.CAPACITOR 16V 47U | 1 | |
| C820-22 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 3 | |
| C823 | | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C824 | | ECUX1H560JCV | C.CAPACITOR CH 50V 56P | 1 | |
| C825 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C826 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C827 | | ECUM1C105MBM | C.CAPACITOR CH 16V 1U | 1 | |
| C828 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C830 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C831 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C832 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C833 | | ECUX1H473ZFV | C.CAPACITOR CH 50V 0.047U | 1 | |
| C834 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C835 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C836 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C843 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C844 | | ECUM1C183KBV | C.CAPACITOR CH 16V 0.018U | 1 | |
| C845 | | ECST0JY475Z | T.CAPACITOR 6.3V 4.7U | 1 | |
| C846 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C847 | | ECUX1H151JCV | C.CAPACITOR CH 50V 150P | 1 | |
| C848,49 | | ECUX1H100CCV | C.CAPACITOR CH 50V 10P | 2 | |
| C850 | | ECUX1H471JCV | C.CAPACITOR CH 50V 470P | 1 | |
| C852 | | ECST0JY106Z | T.CAPACITOR 6.3V 10U | 1 | |
| C853 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C855 | | ECUM1C224KBN | C.CAPACITOR CH 16V 0.22U | 1 | |
| C858 | | ECUX1H103ZFV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C860 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C861 | | ECUX1H561JCV | C.CAPACITOR CH 50V 560P | 1 | |
| C862 | | ECUX1H103KBV | C.CAPACITOR CH 50V 0.01U | 1 | |
| C865 | | ECUX1C104ZFV | C.CAPACITOR CH 16V 0.1U | 1 | |
| C869 | | ECUX1C123KBV | C.CAPACITOR CH 16V 0.012U | 1 | |
| C871 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C883,84 | | ECUX1H221JCV | C.CAPACITOR CH 50V 220P | 2 | |
| C885 | | ECUX1H101JCV | C.CAPACITOR CH 50V 100P | 1 | |
| C893 | | VCEZ0JAU156Z | E.CAPACITOR 6.3V 15M | 1 | |
| C895 | | ECUX1H102KBV | C.CAPACITOR CH 50V 1000P | 1 | |
| C897 | | ECUM1C105ZFN | C.CAPACITOR CH 16V 1U | 1 | |
| C1603 | | ECEV1CA220 | E.CAPACITOR 16V 22U | 1 | |
| | | | | | |
| | | | | | |
| D801-04 | | MA152K | DIODE | 4 | |
| D1601 | | SFPB-72 | DIODE | 1 | |
| D1602,03 | | MA8130M | DIODE | 2 | |
| | | | | | |
| | | | | | |
| FP801 | | VJS3320D028 | CONNECTOR (FEMALE) 28P | 1 | |
| | | | | | |
| | | | | | |
| IC801 | | FA7610N | IC | 1 | |
| IC802 | | AN2523FAP | IC | 1 | |
| IC803 | | MN83803A | IC | 1 | |
| | | | | | |
| | | | | | |
| J1601 | | VJJ0368 | JACK | 1 | |
| J1602 | | VEK6424 | JACK | 1 | |
| | | | | | |
| | | | | | |
| L801 | | ELJPA470KB | COIL | 1 | |
| L803 | | ELJFA470KB | COIL | 1 | |
| L804 | | ELJPA331KB | COIL | 1 | |
| L805,06 | | ELJFA470KB | COIL | 2 | |
| L891 | | ELC5UB101K | COIL H | 1 | |
| L1601,02 | | VLP0134 | INDUCTOR | 2 | |
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| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| P802 | | VJP3125B005 | CONNECTOR (MALE) 5P | 1 | |
| PP1601 | | VJP3126B030 | CONNECTOR (MALE) 30P | 1 | |
| Q801 | | 2SD1328-S | TRANSISTOR | 1 | |
| Q802,03 | | 2SB956-R | TRANSISTOR | 2 | |
| Q804 | | XN1501 | TRANSISTOR-TRANSISTOR | 1 | |
| Q806 | | XN4501 | TRANSISTOR-RESISTOR | 1 | |
| Q807 | | XN1401 | TRANSISTOR-TRANSISTOR | 1 | |
| Q808 | | XN4601 | TRANSISTOR-TRANSISTOR | 1 | |
| QR801 | | UN5212 | TRANSISTOR-RESISTOR | 1 | |
| R800 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R801 | | ERJ3GEYJ684 | M.RESISTOR CH 1/16W 680K | 1 | |
| R803 | | ERJ3GEYJ184 | M.RESISTOR CH 1/16W 180K | 1 | |
| R804 | | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R805 | | ERJ3GEYJ332 | M.RESISTOR CH 1/16W 3.3K | 1 | |
| R806 | | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R807 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R808 | | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 1 | |
| R810-12 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 3 | |
| R813 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R814-16 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 3 | |
| R817 | | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R818 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R819 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R820 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R821 | | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R822 | | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R823 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R827 | | ERJ3GEYJ563 | M.RESISTOR CH 1/16W 56K | 1 | |
| R828 | | ERJ3GEYJ331 | M.RESISTOR CH 1/16W 330 | 1 | |
| R829,30 | | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 2 | |
| R831 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R832 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R833 | | ERJ3GEYJ223 | M.RESISTOR CH 1/16W 22K | 1 | |
| R834 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R835 | | ERJ3GEYJ681 | M.RESISTOR CH 1/16W 680 | 1 | |
| R836,37 | | VRE0071E472 | M.RESISTOR CH 1/10W 4.7K | 2 | |
| R838 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R839 | | VRE0071E472 | M.RESISTOR CH 1/10W 4.7K | 1 | |
| R840-42 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 3 | |
| R843 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R844 | | ERJ3GEYJ104 | M.RESISTOR CH 1/16W 100K | 1 | |
| R845 | | VRE0071E472 | M.RESISTOR CH 1/10W 4.7K | 1 | |
| R846 | | VRE0071E123 | M.RESISTOR CH 1/10W 12K | 1 | |
| R847 | | ERJ3GEYJ473 | M.RESISTOR CH 1/16W 47K | 1 | |
| R848 | | ERJ3GEYJ823 | M.RESISTOR CH 1/16W 82K | 1 | |
| R849 | | ERJ3GEYJ391 | M.RESISTOR CH 1/16W 390 | 1 | |
| R850 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R852,53 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R856 | | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 1 | |
| R857 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R858 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R859 | | ERJ3GEYJ392 | M.RESISTOR CH 1/16W 3.9K | 1 | |
| R860 | | ERJ3GEY0R00 | M.RESISTOR CH 1/16W 0 | 1 | |
| R862 | | VRE0071E223 | M.RESISTOR CH 1/10W 22K | 1 | |
| R863 | | VRE0071E333 | M.RESISTOR CH 1/10W 33K | 1 | |
| R864 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R865 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R868 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 1 | |
| R869 | | ERJ3GEYJ562 | M.RESISTOR CH 1/16W 5.6K | 1 | |
| R870 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R872,73 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 2 | |
| R875 | | ERJ3GEYJ222 | M.RESISTOR CH 1/16W 2.2K | 1 | |
| R878 | | ERJ3GEYJ472 | M.RESISTOR CH 1/16W 4.7K | 1 | |
| R880-82 | | ERJ3GEYJ123 | M.RESISTOR CH 1/16W 12K | 3 | |
| R883-85 | | ERJ3GEYJ101 | M.RESISTOR CH 1/16W 100 | 3 | |
| R886-88 | | ERJ3GEYJ333 | M.RESISTOR CH 1/16W 33K | 3 | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| R889 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R890 | | ERJ3GEYJ683 | M.RESISTOR CH 1/16W 68K | 1 | |
| R893 | | ERJ3GEYJ154 | M.RESISTOR CH 1/16W 150K | 1 | |
| R895 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| R1601 | | VSF0092 | FUSE RESISTOR | 1 | <!> |
| R1606 | | ERJ6GEYJ102 | M.RESISTOR CH 1/10W 1K | 1 | |
| SW806 | | VSS0392 | SWITCH | 1 | |
| SW895 | | ESE122 | SWITCH | 1 | |
| T801 | | ELL04T026R | TRANSFORMER | 1 | <!> |
| VR802-06 | | EVM7JGA00B24 | V.RESISTOR | 5 | |
| VR807 | | EV1HFMA01B14 | V.RESISTOR | 1 | |
| VR808 | | EVM7JGA00B53 | V.RESISTOR | 1 | |
| VR809 | | EVM7JSX30B52 | V.RESISTOR 500 | 1 | |
| VR810 | | EVM7JGA00B24 | V.RESISTOR | 1 | |
| VR812 | | EVM7JGA00B24 | V.RESISTOR | 1 | |
| | | | MISCELLANEOUS | | |
| | | VEE8907 | WIRE CABLE | 1 | |
| | ■ | VEP28103A | E.V.F. (B) C.B.A. | | (RTL) |
| BL891 | | VLL0079 | FILTER | 1 | |
| C891 | | ECUM1C1052FN | C.CAPACITOR CH 16V 1U | 1 | |
| D891 | | CL150YG-CD | DIODE | 1 | |
| FP891 | | VJS2958B006 | CONNECTOR (FEMALE) 6P | 1 | |
| Q891 | | 2SK1284-Z | TRANSISTOR | 1 | |
| R891 | | ERJ3GEYJ102 | M.RESISTOR CH 1/16W 1K | 1 | |
| R892 | | ERJ3GEYJ103 | M.RESISTOR CH 1/16W 10K | 1 | |
| T891 | | ETJ09K6AM | TRANSFORMER | 1 | |
| | | | MISCELLANEOUS | | |
| | | VGQ3442 | BL HOLDER | 1 | |
| | ■ | VEP22132C | CCD FLEX.CARD C.B.A. | | (RTL) |
| B291 | | VJS3500C012 | CONNECTOR (FEMALE) 12P | 1 | |
| C292 | | ECST1VX225Z | T.CAPACITOR 35V 2.2U | 1 | |
| C294 | | ECUM1E4732FN | C.CAPACITOR 25V 0.047U | 2 | |
| C295 | | ECUM1E104ZFN | C.CAPACITOR 25V 0.1U | 1 | |
| D291 | | MA153 | DIODE | 1 | |
| Q291 | | 2SC2295 | TRANSISTOR | 1 | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| R291 | | ERJ6GEYG560 | M.RESISTOR CH 1/16W 56 | 1 | |
| R292 | | ERJ6GEYG152 | M.RESISTOR CH 1/16W 1.5K | 1 | |
| R293 | | ERJ6GEY0R00 | M.RESISTOR CH 1/16W 0 | 2 | |
| | | | MISCELLANEOUS | | |
| | | VJB22132 | FLEX. CARD | 1 | |
| | ■ | VEK6690 | LENS FLEX. CARD C.B.A. | | (RTL) |
| | | | MISCELLANEOUS | | |
| | | ON1400-R | PHOTO SENSOR | 1 | |
| | ■ | VEP00V20A | FRONT OPERATION C.B.A. | | (RTL) |
| D501-03 | | MA121 | DIODE | 3 | |
| FP501 | | VJS3645B011 | CONNECTOR (FEMALE) 11P | 1 | |
| SW055 | | VSR0099 | SWITCH | 1 | |
| VR501 | | EVJ4Y0FB4B15 | V.RESISTOR | 1 | |
| | ■ | VEK7335 | MIC UNIT | | |
| C4802 | | ECUM1C683KBN | C.CAPACITOR CH 16V 0.068U | 1 | |
| C4803,04 | | ECUM1H223KBN | C.CAPACITOR CH 50V 0.022U | 2 | |
| C4807 | | ECST1CY1052 | T.CAPACITOR 16V 1U | 1 | |
| C4808 | | ECUM1H102KBN | C.CAPACITOR CH 50V 1000P | 1 | |
| C4811 | | ECEA0JKS470 | E.CAPACITOR 6.3V 47U | 1 | |
| IR1501 | | PH310 | IR RECEIVER UNIT | 1 | |
| J4801 | | VJJ0289 | MIC JACK | 1 | |
| P4801 | | VJP1606T | CONNECTOR (MALE) 2P | 1 | |
| P4802 | | VJP3331B004 | CONNECTOR (MALE) 4P | 1 | |
| Q4801 | | 2SD601A | TRANSISTOR | 1 | |
| Q4802 | | 2SC2405 | TRANSISTOR | 1 | |
| Q4803-05 | | 2SD601A | TRANSISTOR | 3 | |
| R4802 | | ERJ6GEYJ222 | M.RESISTOR CH 1/10W 2.2K | 1 | |
| R4803,04 | | ERJ6GEYJ683 | M.RESISTOR CH 1/10W 68K | 2 | |
| R4805 | | ERJ6GEYJ123 | M.RESISTOR CH 1/10W 12K | 1 | |
| R4806 | | ERJ6GEYJ182 | M.RESISTOR CH 1/10W 1.8K | 1 | |
| R4807 | | ERJ6GEYJ102 | M.RESISTOR CH 1/10W 1K | 1 | |
| R4808 | | ERJ6GEYJ101 | M.RESISTOR CH 1/10W 100 | 1 | |
| R4809 | | ERJ6GEYF124 | M.RESISTOR CH 1/10W 120K | 1 | |
| R4810 | | ERJ6GEYJ184 | M.RESISTOR CH 1/10W 180K | 1 | |
| R4811 | | ERJ6GEYJ822 | M.RESISTOR CH 1/10W 8.2K | 1 | |
| R4812 | | ERJ6GEYJ561 | M.RESISTOR CH 1/10W 560 | 1 | |
| R4816 | | ERJ6GEYJ332 | M.RESISTOR CH 1/10W 3.3K | 1 | |
| R4817 | | ERJ6GEYJ103 | M.RESISTOR CH 1/10W 10K | 1 | |
| | | | MISCELLANEOUS | | |
| | | VEE9166 | WIRE CABLE | 1 | |

| Ref.No. | | Part No. | Part Name & Description | Pcs | Remarks |
|---|---|---|---|---|---|
| | ■ | VEP04457E | AV JACK C.B.A. | | (RTL) |
| B1501 | | VJS3294C010 | CONNECTOR (FEMALE) 10P | 1 | |
| C1503 | | ECUM1C104ZFN | C.CAPACITOR CH 16V 0.1U | 1 | |
| C1504 | | ECUM1H121JCN | C.CAPACITOR CH 50V 120P | 1 | |
| L1503 | | VLP0145 | COIL | 1 | |
| L1504,05 | | VLQ0584 | COIL | 2 | |
| R1511 | | ERJ3GEY0R00 | M.RESITOR CH 1/16W 0 | 1 | |
| | | | MISCELLANEOUS | | |
| | | VEJ1378 | AV JACK PLATE | 1 | |
| | | VMP4063 | EARTH PLATE | 1 | |
| | ■ | VEP00V80B | S/S C.B.A. | | (RTL) |
| PJ6701 | | VJP2272 | CONNECTOR (MALE) | 1 | |
| S6702 | | ESE103119 | SWITCH | 1 | |
| | ■ | VEP00V69A | EJECT/SNAP C.B.A. | | (RTL) |
| S6701 | | ESD165236 | SWITCH | 1 | |
| | ■ | VEP00U65B | LITHUIM BATTERY C.B.A. | | (RTL) |
| P1701 | | VJP3125D005 | CONNECTOR (MALE) 5P | 1 | |
| P1702 | | VJP3125D002 | CONNECTOR (MALE) 2P | 1 | |
| R1701 | | ERJ3GEYJ181 | M.RESISTOR CH 1/16W 180 | 1 | |
| Z1701 | | VL2020/1HF | LITHUIM BATTERY | 1 | |

ORDER NO. VMD9412M130

# Service Manual

*General Description*
*Adjustment Procedures*
*Disassembly/Assembly*
*Service Hints*

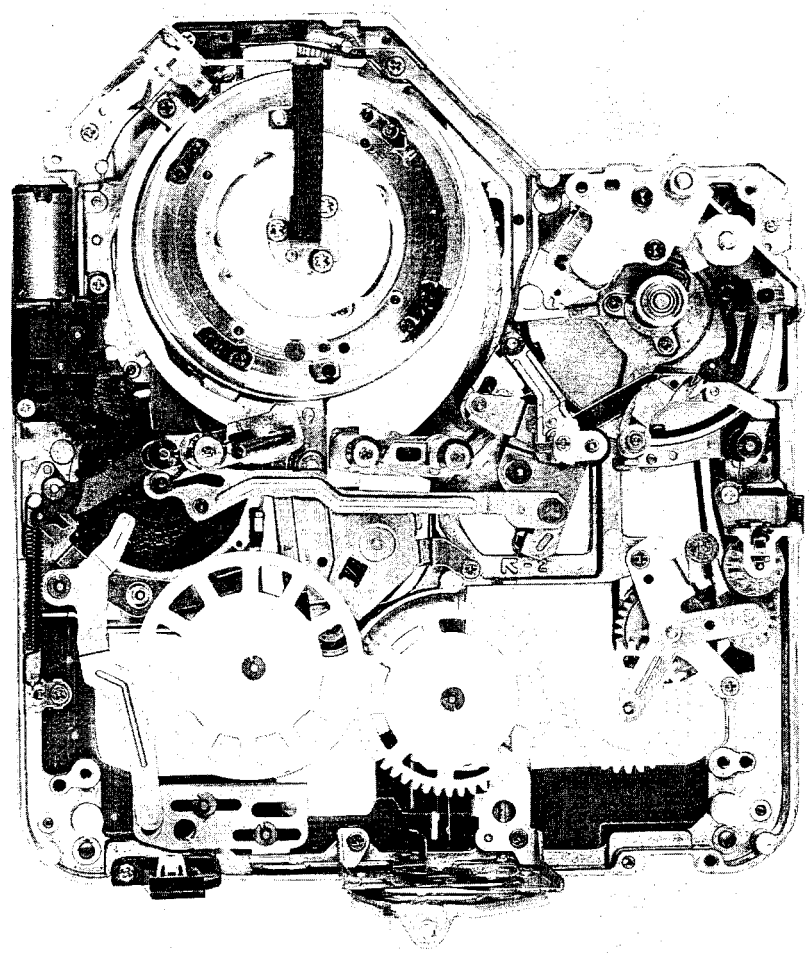
V11317

Panasonic VHSC
SVHSC

## VHS-C MOVIE

## DL-MECHANISM

(Since 1991 Models)



Panasonic

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**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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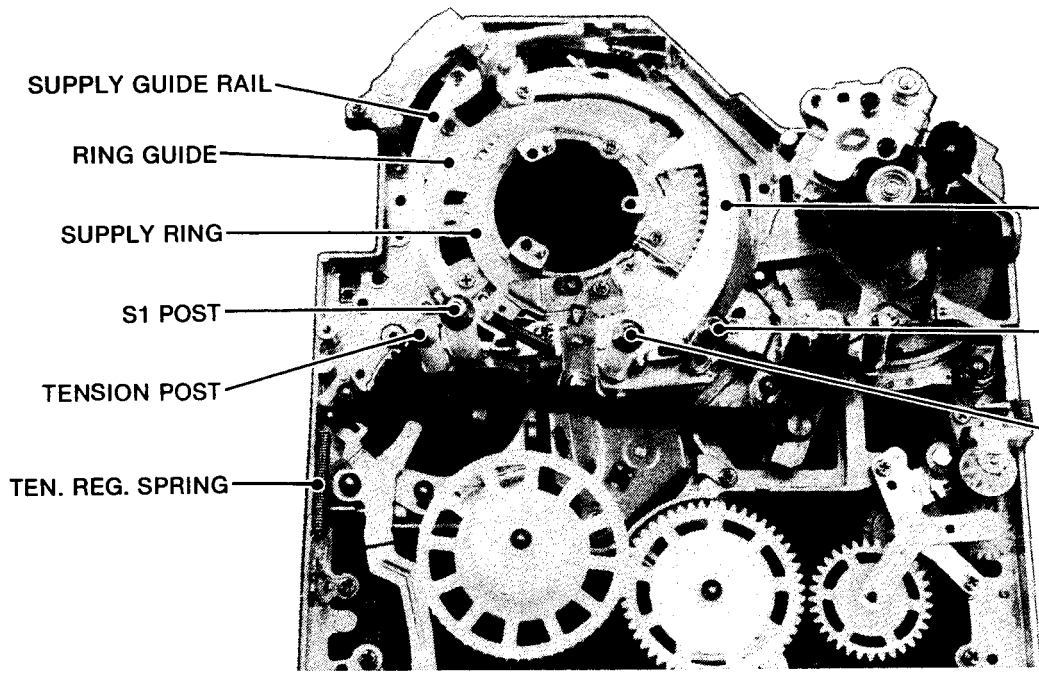
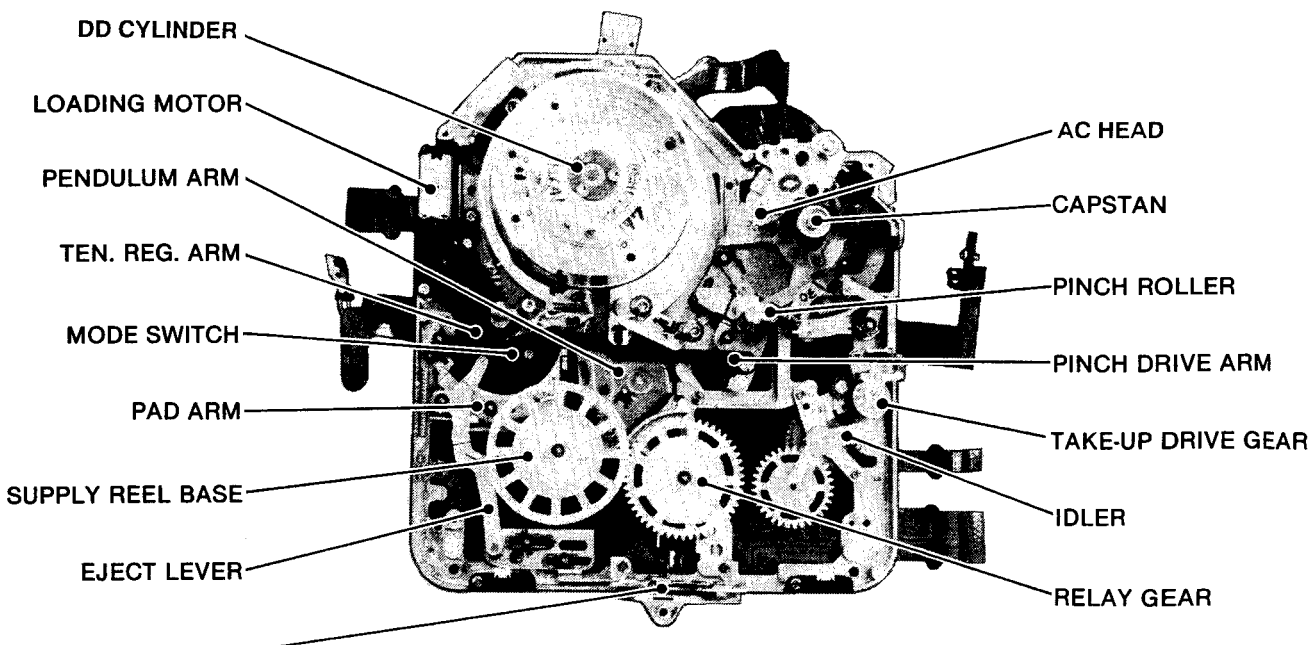
# 1 MOVEMENT OF MECHANISM

## 1. Name of Mechanism




* TAKE-UP RING is located underneath of RING GUIDE.



## 2.Mechanical Operation

2–1. Loading operation

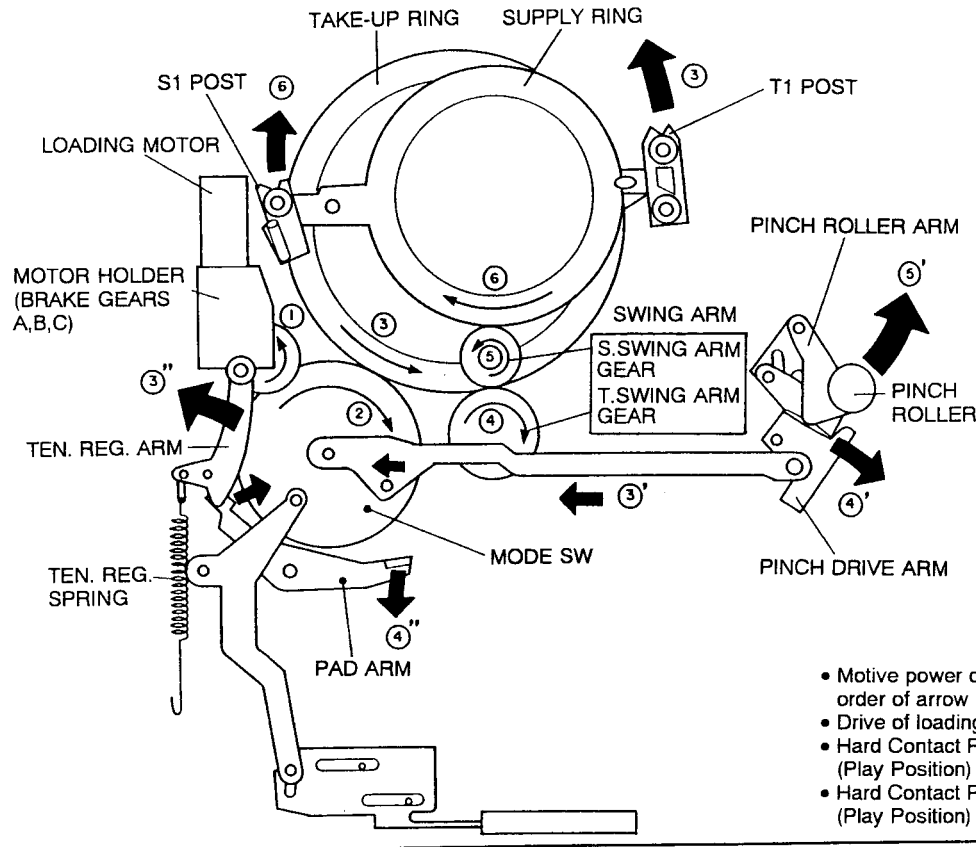

TAKE-UP RING
SUPPLY RING
S1 POST
T1 POST
LOADING MOTOR
PINCH ROLLER ARM
MOTOR HOLDER (BRAKE GEARS A,B,C)
SWING ARM
S.SWING ARM GEAR
T.SWING ARM GEAR
PINCH ROLLER
TEN. REG. ARM
MODE SW
PINCH DRIVE ARM
TEN. REG. SPRING
PAD ARM
• Motive power of loading motor is transferred by order of arrow mark.
• Drive of loading post.
• Hard Contact Pinch Roller with capstan shaft. (Play Position)
• Hard Contact Pad Arm with S.Reel table. (Play Position)

Fig. 1 Loading Mechanism

2–2. Eject operation

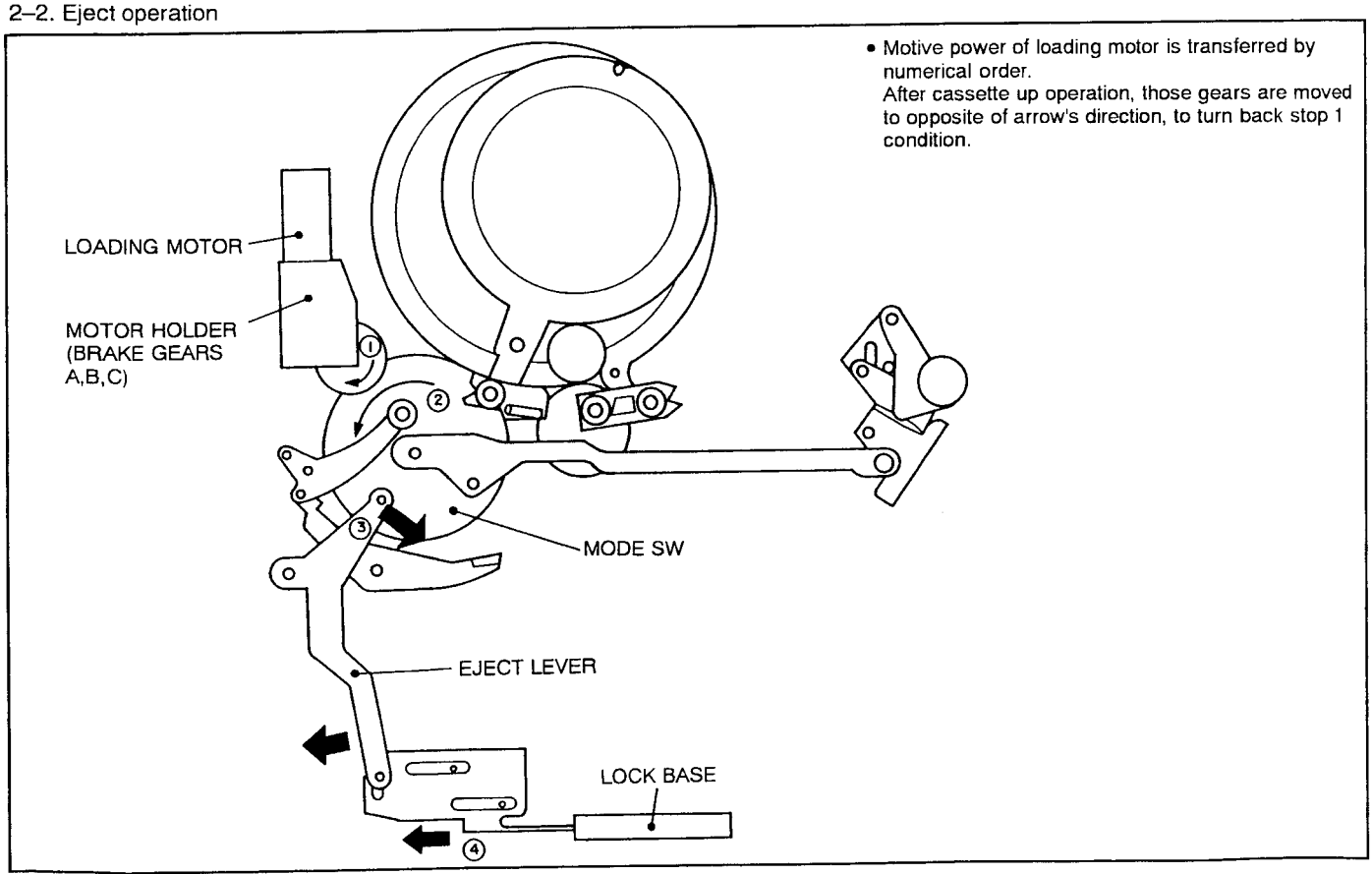

• Motive power of loading motor is transferred by numerical order.
After cassette up operation, those gears are moved to opposite of arrow's direction, to turn back stop 1 condition.
LOADING MOTOR
MOTOR HOLDER (BRAKE GEARS A,B,C)
MODE SW
EJECT LEVER
LOCK BASE

Fig. 2 Unloading Mechanism

# 3. Movement of Reel Table

3–1. FF operation

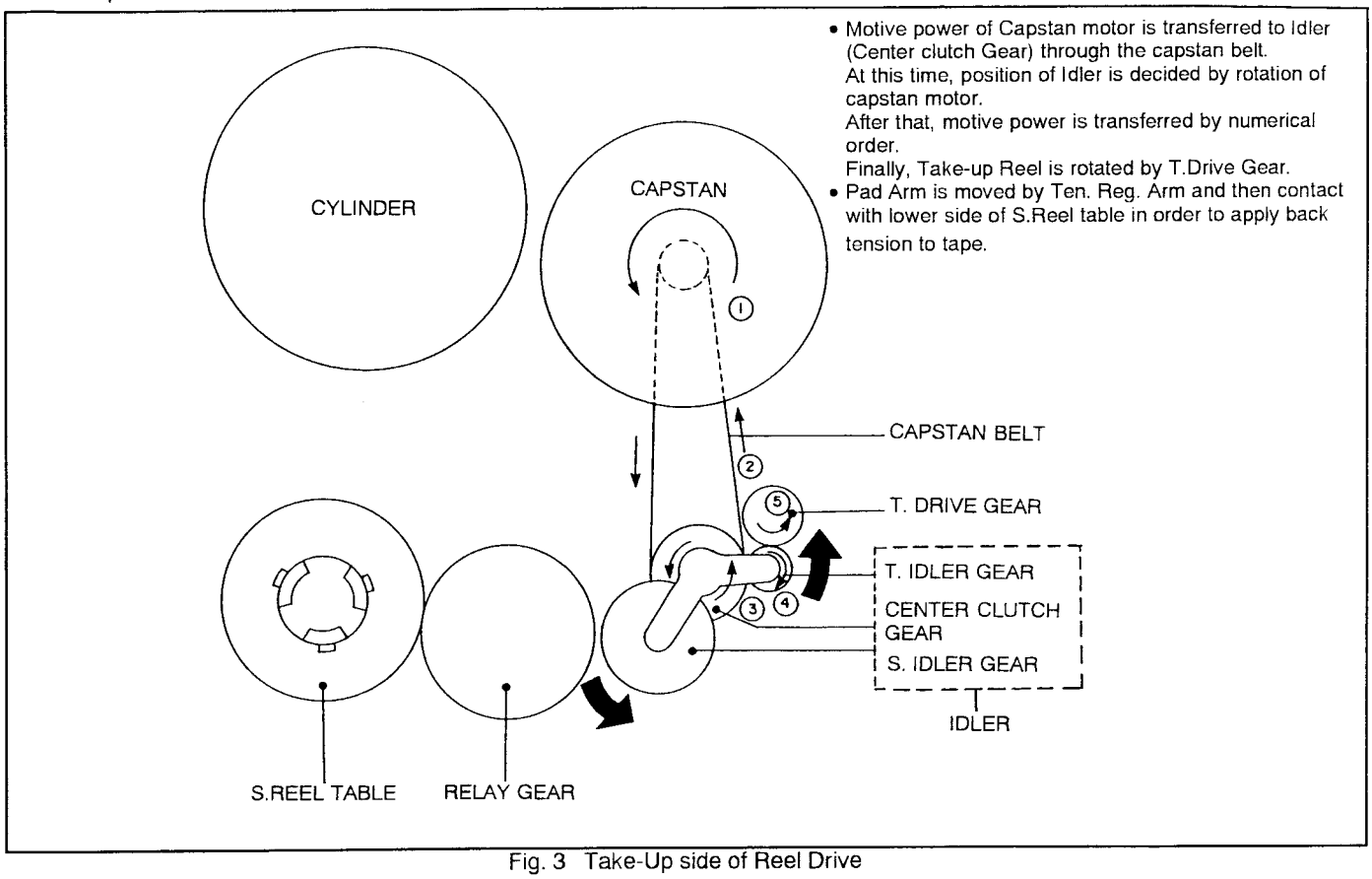

• Motive power of Capstan motor is transferred to Idler (Center clutch Gear) through the capstan belt.
At this time, position of Idler is decided by rotation of capstan motor.
After that, motive power is transferred by numerical order.
Finally, Take-up Reel is rotated by T.Drive Gear.
• Pad Arm is moved by Ten. Reg. Arm and then contact with lower side of S.Reel table in order to apply back tension to tape.
CYLINDER
CAPSTAN
CAPSTAN BELT
T. DRIVE GEAR
T. IDLER GEAR
CENTER CLUTCH GEAR
S. IDLER GEAR
IDLER
S.REEL TABLE
RELAY GEAR

Fig. 3 Take-Up side of Reel Drive

3–2. REW operation

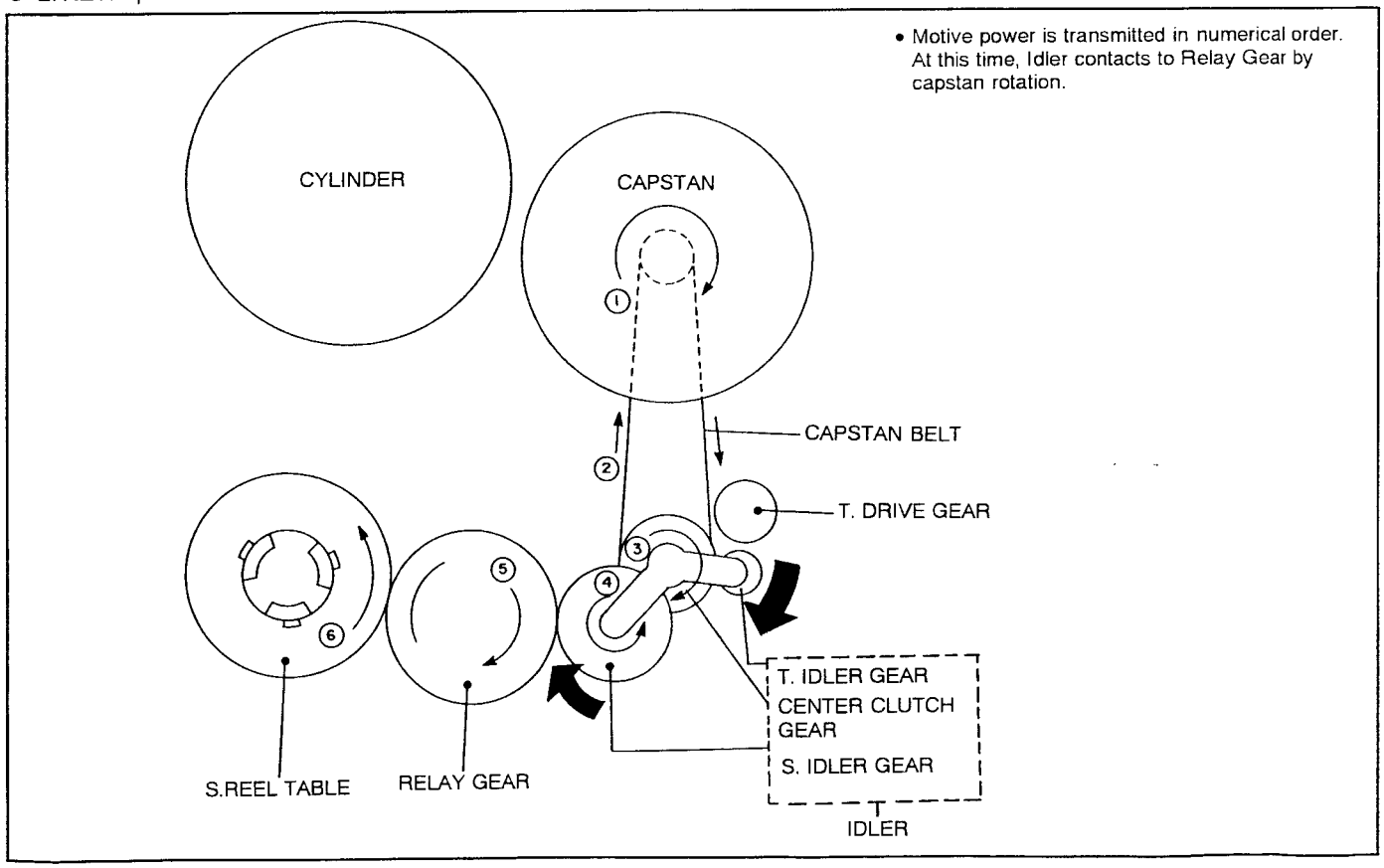



Fig. 4 Supply side of Reel drive

## 2 ALIGNMENT OF MECHANISM

Following mechanichal phase condition is important for mechanical alignment.

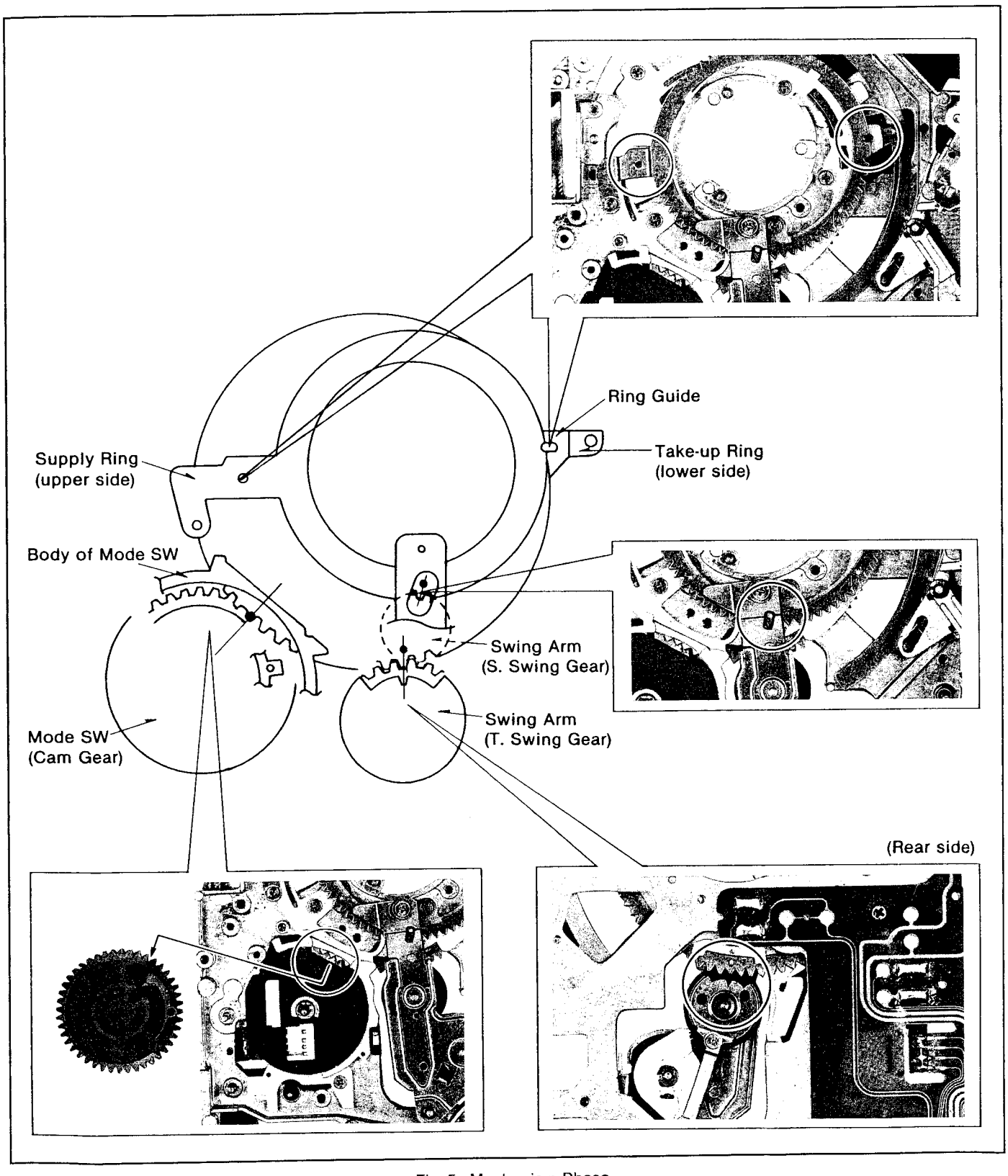
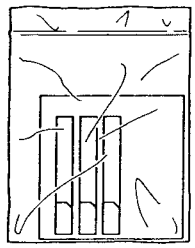
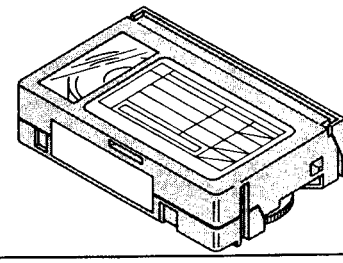
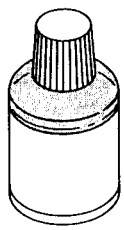
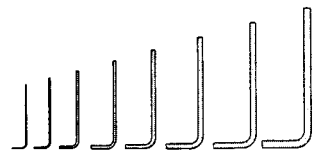
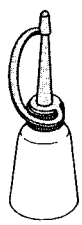
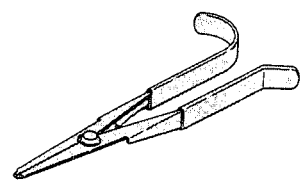
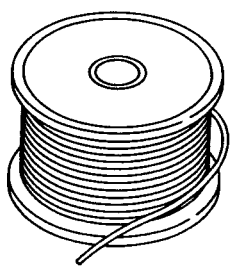
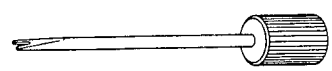
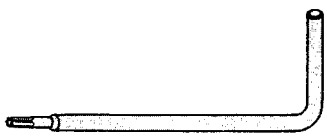
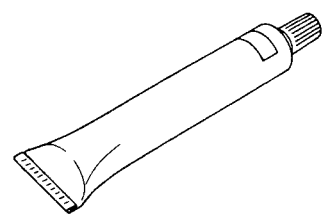


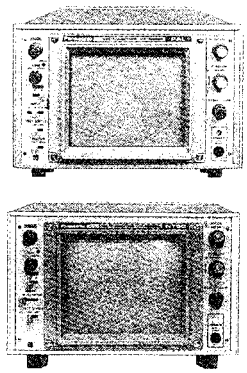
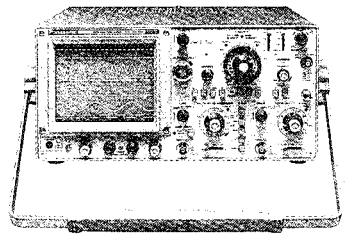
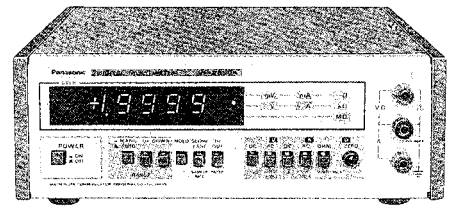
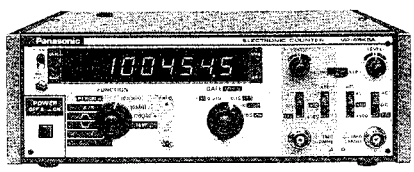

Fig. 5 Mechanism Phase

## SERVICING FIXTURES & TOOLS FOR MOVIE CAMERA

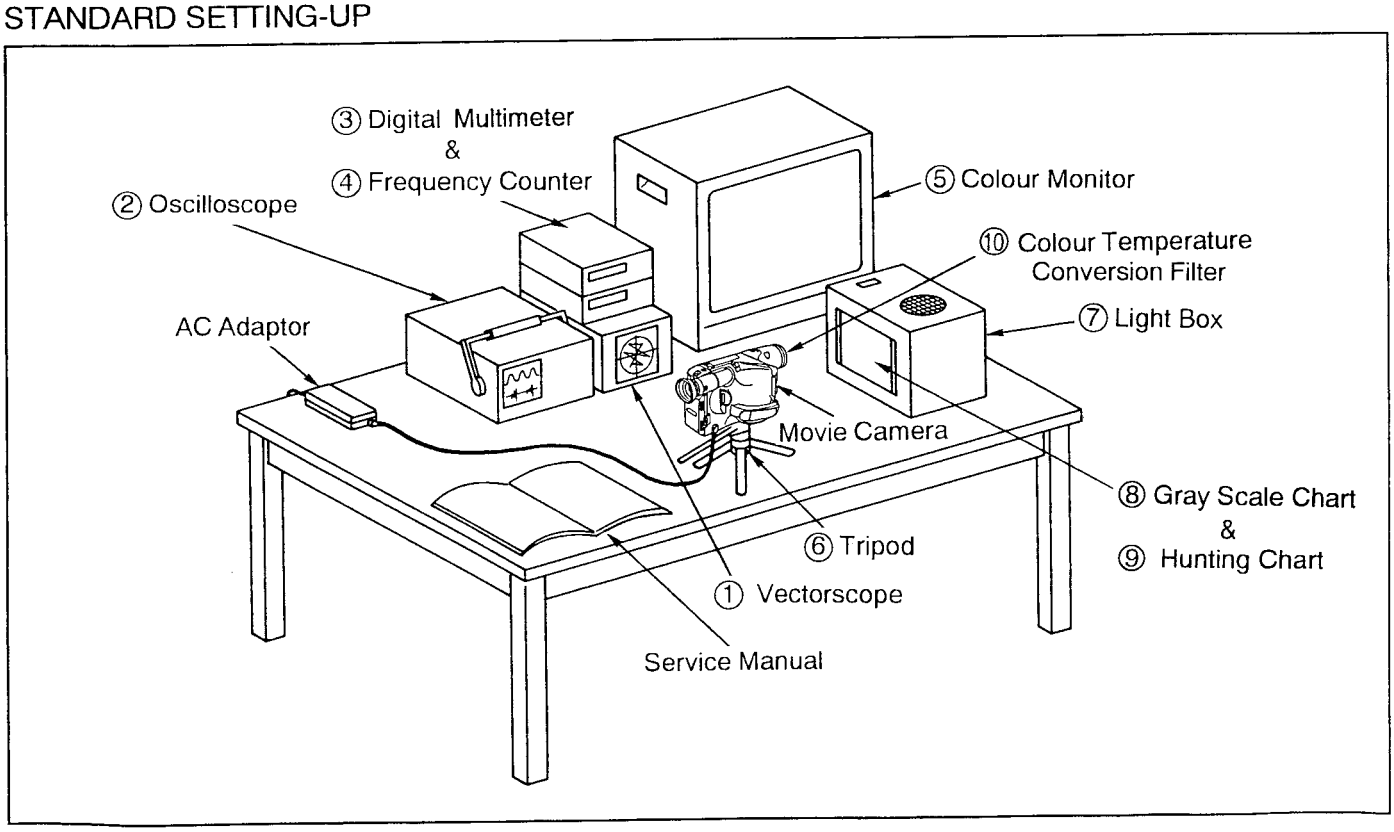
| ITEM | PURPOSE | ITEM | PURPOSE |
|---|---|---|---|
| Head Cleaning Stick<br>Order No. VFK27<br>  | For head cleaning | VHS-C Alignment Tape<br>NTSC: Order No. VFM8081HQPP<br>PAL: Order No. VFM8180HUPF<br>  | For<br>1)Tape Interchangeability adj.<br>2)Checking colour |
| Solder Flux<br>Order No. RZZ0320<br>  | For smooth and secure soldering | Hex. Key Wrench set (8 pcs.)<br>Order No. VFK0326<br>  <br>0.7mm,0.9mm,1.2mm,1.5mm,<br>1.6mm,2.0mm,2.4mm,3.0mm | For height adjustment of Tape Guide Posts |
| Oil<br>Order No. VFK0131<br>  | For Reel Shaft &<br>Capstan Shaft | Retaining Ring Remover<br>Order No. VFK0335<br>  | For removal of Retaining Ring |
| 0.4mm Solder<br>Order No. VFK0732<br>  | For Soldering flat-pack IC | H-Position Adjustment Driver<br>Order No. VFK0743<br>  | For horizontal position adjustment of A/C Head |
| Asterisk Wrench<br>Order No. VFK0824<br>  | For A/C Head adj. | Molytone Grease<br>Order No. M0R265<br>  | For moving parts of mechanism |

## SERVICE MEASUREMENT EQUIPMENTS

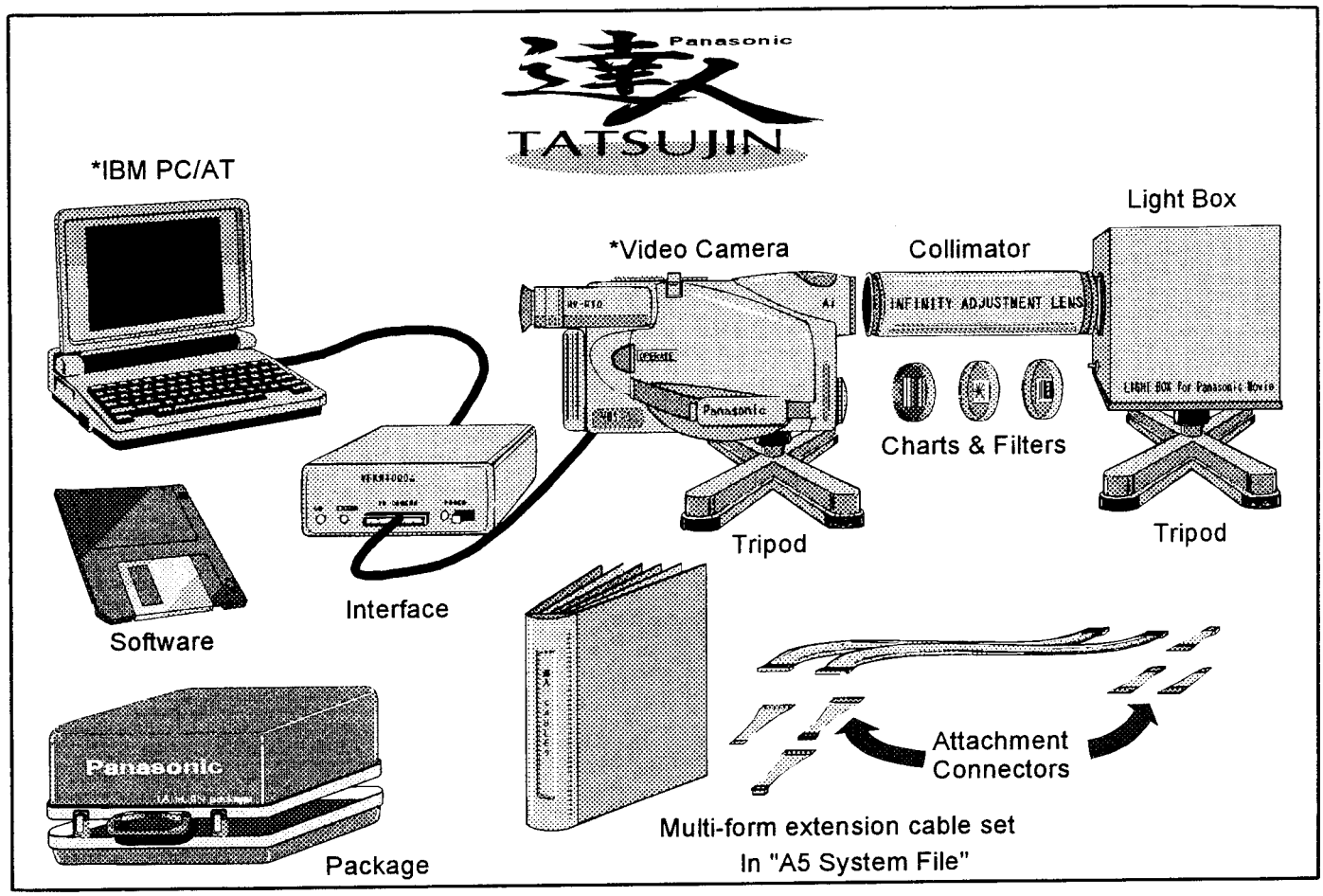
To achieve the movie camera servicing, following adjustment equipments should be required.
(For more detail, please refer to each models Service Manual.)

| ① **VECTOR SCOPE** | ② **OSCILLOSCOPE** | ③ **DIGITAL MULTIMETER** |
|---|---|---|
|  |  <br>CH1,CH2<br>5mV/div DC~100MHz<br>2mV/div DC~50MHz<br>1mV/div DC~25MHz<br>CH1 SIG OUT DC~10MHz<br>CH3 EXT DC~70MHz |  <br>AC: 200mV~500V (5 Range)<br>DC: 200mV~1000V (5 Range)<br>Resistor: 200Ω~20MΩ (6 Range)<br>AC Curent: 200mA,1A (2 Range)<br>DC Curent: 200mA,1A (2 Range) |
| ④ **FREQUENCY COUNTER** | ⑤ **COLOUR MONITOR** (Colour TV) | ⑩ **COLOUR TEMPERATURE CONVERSION FILTER** (order NO. : VFK0713(C12)) (order NO. : VFK0716(C2)) |
|  <br>CH-A<br>25mVrms DC~10MHz<br>CH-B<br>25mVrms DC~100MHz | ⑥ **TRIPOD** | |
| | ⑦ **LIGHT BOX** (order NO. :VRD93MLB) | ⑪ **EVR FIXTURE** (order NO. : VFK0644) |
| | ⑧ **GRAY SCALE CHART** (order NO. : VFK0871S) | ⑫ **COMMUNICATING CABELS** (order NO. : VFK0766A(5P)) (order NO. : VFK0734W(24P)) |
| | ⑨ **HUNTING CHART** (order NO. : VFK0546) | ⑬ **ROM FOR EVR FIXTURE** (order NO. : VFK0701ROM＊＊) |

## STANDARD SETTING-UP



NEW SERVICE DEVICE KIT "TATSUJIN" Order NO.: VED95TTJ




A new service device kit for Video Camera, "TATSUJIN" kit, is now available from Panasonic. "TATSUJIN" is a Japanese word witch means a specialist, expert, or master in English. This naming was made because the kit will make you a "TATSUJIN" of Panasonic Video Camera servicing. The "TATSUJIN" kit consists of the following 3 items which are simply organized in a small package. All of which will drastically improve your productivity of Video Camera servicing in terms of Diagnosis, Adjustment, and Confirmation.

1. PC-EVR. (Interface, Software, Connecting Cables)
   It connects a Camera to your IBM PC/AT so that the adjustment and trouble-shooting can be done easily on PC screen. The time used to taken by the camera adjustment will be reduced more than 60%. In addition, its diagnosis support function helps you to improve the service efficiency drastically. The conventional EVR (VFK0644) will be replaced by this new computer-aided system.

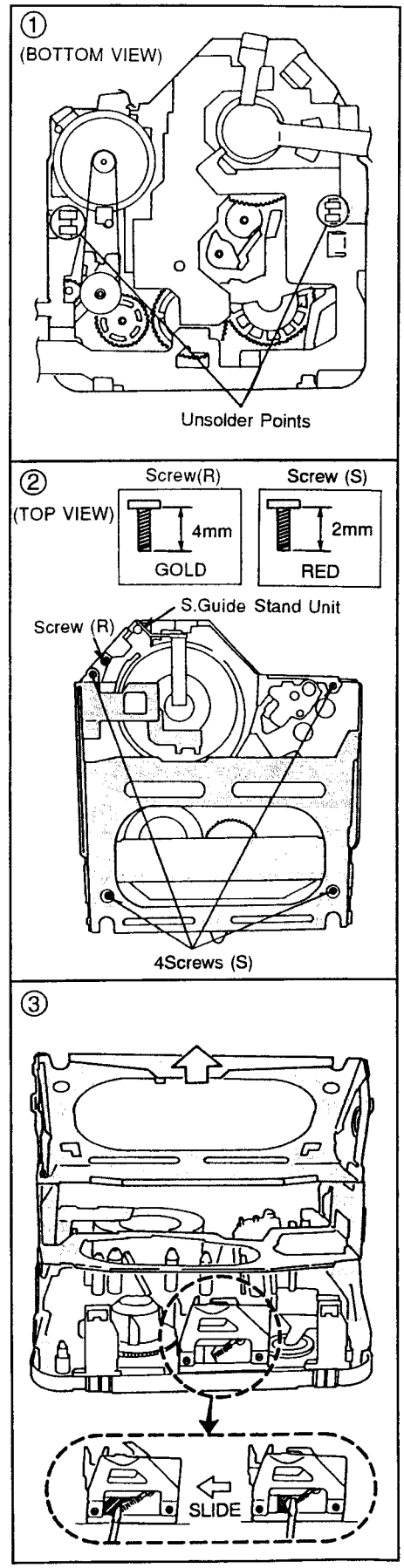
2. Optical Set. (Collimator, Charts & Filters, Light Box, Tripods)
   All of the optical devices which are indispensable to service a camera but used to take a huge space to set up, are now drastically shrunk into a compact "Desk-top space". Now you can easily aim various charts, COLOUR-BAR, GRAY-SCALE, HUNTING, and WHITE, by simply attaching them to the collimator which is inserted in a compact light box. So that you do not have to worry about restricting external light and measuring the distance from the chart.

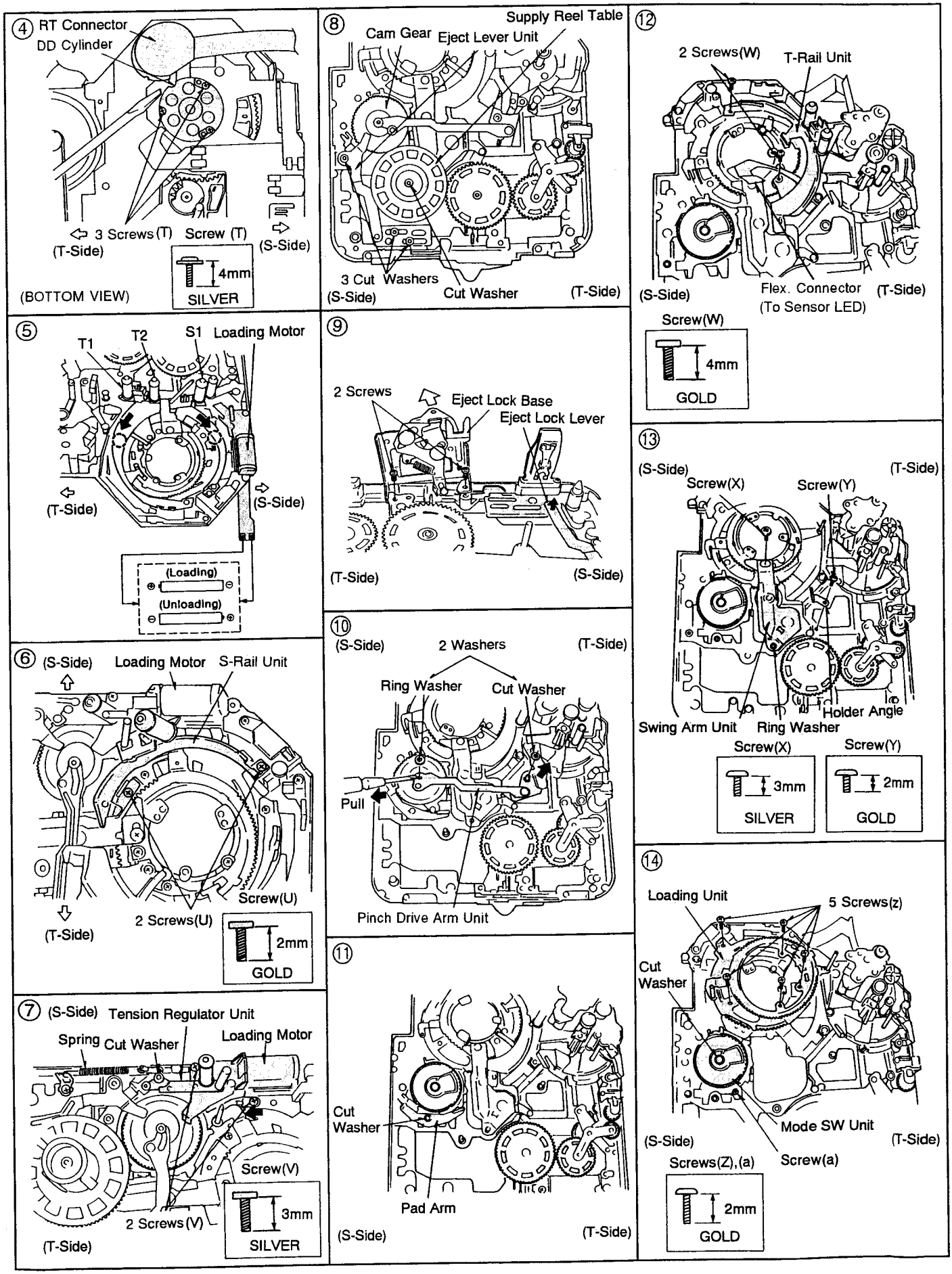
3. Multi-form Extension Cable Set.
   Now you can make any kind of extension cable required, by simply changing the attachment connectors. All of the connectors which cover all extension cables since 1990, are simply organized in a "A5 System File". When you need a new connector for a new model, it can be purchased at extremely low price.

Note: *PC and *Camera are not included in the kit.The minimum requirement of the PC is 80286 CPU,1MB RAM, and MS-DOS 3.2. For further information, please contact Video Equipment Division.

## 3 DISASSEMBLY PROCEDURES OF MECHANISM

| No. | Items | Fig. | R:Removal / S:Unsolder | |
|---|---|---|---|---|
| 1 | Cassette Holder U. | ① | S | 2 Flex. Connectors |
| | | ② | R | 4 Red Screws(2mm) |
| | | ③ | – | Release Eject Lock Lever |
| 2 | S.Guide Stand U. | ② | R | 1 Gold Screw (4mm) |
| 3 | DD Cylinder U. | ④ | R | RT Connector |
| | | | R | 3 Silver Screws(4mm) |
| 4 | Supply Rail U. | ⑤ | – | Make loading half way with a 1.5V battery. |
| | | ⑥ | R | 2 Gold Screws(2mm) |
| 5 | Loading Motor U. | ⑦ | R | 2 Silver Screws(3mm)<br>*Slightly move loading posts with a battery. |
| 6 | Tension Regulator U. | ⑦ | – | Unhook Tension Spring. |
| | | | R | 1 Cut Washer |
| 7 | Supply Reel Table | ⑧ | R | 1 Cut Washer |
| 8 | Eject Lever U. | ⑧ | R | 3 Cut Washers |
| | | ⑨ | R | 2 Screws on Eject Lock Base. |
| 9 | Pinch Drive Arm | ⑩ | R | 1 Ring Washer<br>1 Cut Washer |
| 10 | Pad Arm | ⑪ | R | 1 Cut Washer |
| 11 | Take-up Rail U. | ⑫ | R | 2 Gold Screws(4mm) |
| | | | S | Sensor LED (bottom) |
| 12 | Swing Arm U. | ⑬ | R | 1 Gold Screw(2mm) |
| | | | R | 1 Silver Screw(3mm) |
| | | | R | 1 Ring Washer |
| 13 | Mode SW | ⑭ | R | 1 Gold Screw(2mm) |
| | | | R | 1 Cut Washer |
| 14 | Loading U. | ⑭ | R | 5 Gold Screws(2mm) |

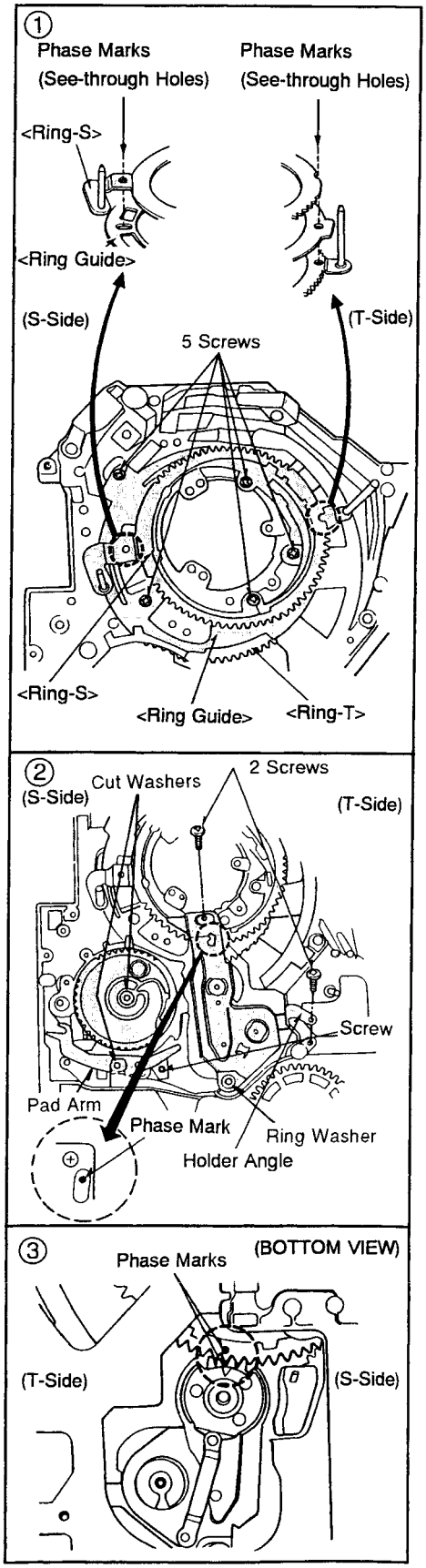


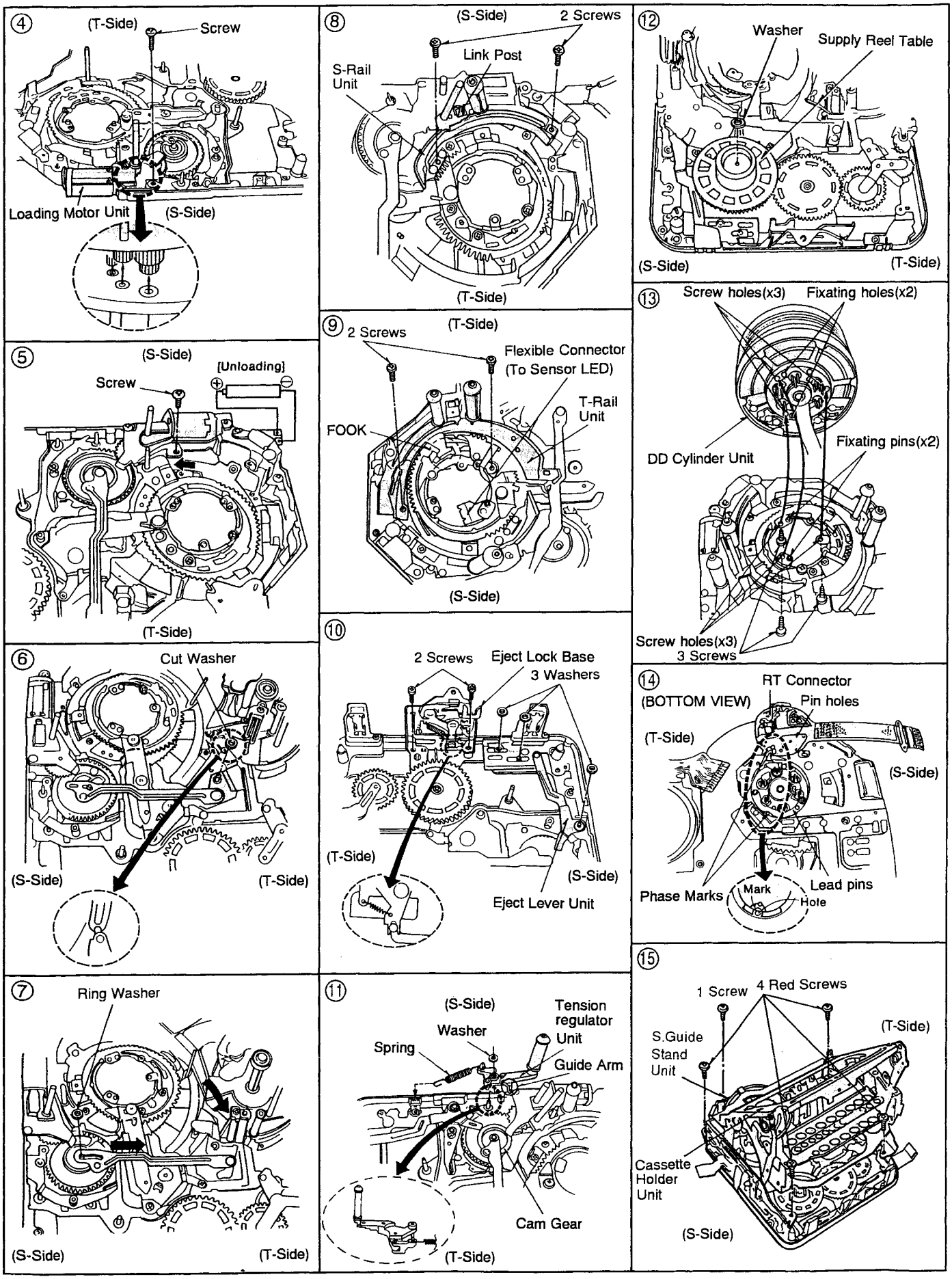

④ RT Connector
DD Cylinder
⇦ 3 Screws (T)
(T-Side)
Screw (T)
(S-Side)
4mm
SILVER
(BOTTOM VIEW)
⑧ Supply Reel Table
Cam Gear
Eject Lever Unit
3 Cut Washers
(S-Side)
Cut Washer
(T-Side)
⑫
2 Screws(W)
T-Rail Unit
(S-Side)
Flex. Connector
(To Sensor LED)
(T-Side)
Screw(W)
4mm
GOLD
⑤
T1
T2
S1
Loading Motor
(T-Side)
(S-Side)
(Loading)
(Unloading)
⑨
2 Screws
Eject Lock Base
Eject Lock Lever
(T-Side)
(S-Side)
⑬
(S-Side)
(T-Side)
Screw(X)
Screw(Y)
Swing Arm Unit
Ring Washer
Holder Angle
Screw(X)
3mm
SILVER
Screw(Y)
2mm
GOLD
⑥ (S-Side)
Loading Motor
S-Rail Unit
Screw(U)
2 Screws(U)
(T-Side)
2mm
GOLD
⑩
(S-Side)
2 Washers
(T-Side)
Ring Washer
Cut Washer
Pull
Pinch Drive Arm Unit
⑭
Loading Unit
5 Screws(z)
Cut Washer
Mode SW Unit
(S-Side)
(T-Side)
Screws(Z),(a)
Screw(a)
2mm
GOLD
⑦ (S-Side)
Tension Regulator Unit
Spring
Cut Washer
Loading Motor
Screw(V)
2 Screws(V)
(T-Side)
3mm
SILVER
⑪
Cut Washer
Pad Arm
(S-Side)
(T-Side)

# 4 ASSEMBLY AND PHASE ADJUSTMENT PROCEDURES OF MECHANISM

## ASSEMBLY & PHASE ADJUSTMENT PROCEDURES

| No. | Items | Fig. | A:Assembly / P:Phase Adj. / S: Solder | |
|---|---|---|---|---|
| 1 | Loading U. | ① | A | 5 Gold Screws(2mm) |
| | | | P | 2 See - through Holes |
| 2 | Cam Gear (Mode SW) | ② | P | See Page 4. (Fig.5) |
| | | | A | 1 Cut Washer |
| | | | A | 1 Gold Screw(2mm) |
| 3 | Pad Arm | ② | A | 1 Cut Washer |
| 4 | Swing Arm U. | ②③ | P | See fig.②,③ |
| | | ② | A | 1 Gold Screw(2mm) with Holder Angle<br>1 Silver Screw(3mm) |
| | | | A | 1 Ring Washer |
| 5 | Loading Motor U. | ④⑤ | A | 2 Silver Screws(3mm)<br>*Slightly move loading posts with a battery. |
| 6 | Pinch Drive Arm | ⑥⑦ | A | 1 Ring & 1 Cut Washers |
| 7 | Supply Rail U. | ⑧ | A | 2 Gold Screws(2mm) |
| 8 | Take-up Rail U. | ⑨ | A | 2 Gold Screws(4mm) |
| | | | S | Sensor LED (bottom) |
| 9 | Eject Lever U. | ⑩ | A | 3 Cut Washers |
| | | | A | 2 Screws on Eject Lock Base. |
| 10 | Tension Regulator U. | ⑪ | A | 1 Cut Washer |
| | | | – | Hook Tension Spring |
| 11 | S. Reel Table | ⑫ | A | 1 Cut Washer |
| 12 | DD Cylinder U. | ⑬ | A | 3 Silver Screws(4mm) |
| 13 | RT Connector | ⑭ | P | See fig.⑭ |
| | | | A | *No Screw |
| 14 | S.Guide Stand U. | ⑮ | A | 1 Gold Screw (4mm) |
| 15 | Cassette Holder U. | ⑮ | A | 4 Red Screws(2mm) |
| | | | S | 2 Flex. Connectors |

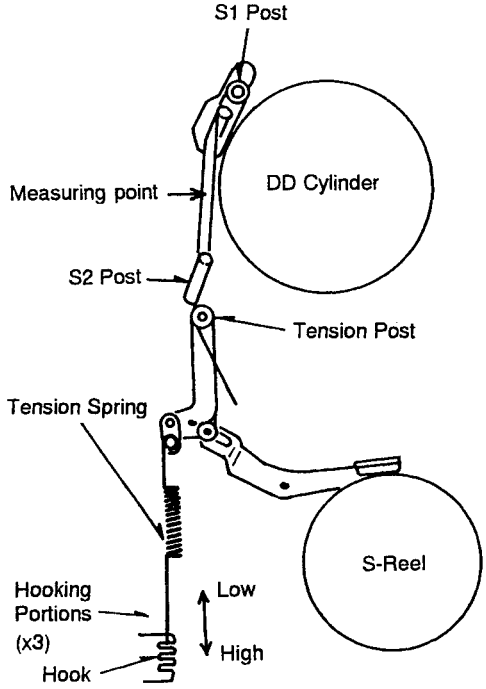



④
(T-Side)
Screw
Loading Motor Unit
(S-Side)
⑤
(S-Side)
[Unloading]
Screw
(T-Side)
⑥
Cut Washer
(S-Side)
(T-Side)
⑦
Ring Washer
(S-Side)
(T-Side)
⑧
(S-Side)
2 Screws
Link Post
S-Rail Unit
(T-Side)
⑨
2 Screws
(T-Side)
Flexible Connector (To Sensor LED)
T-Rail Unit
FOOK
(S-Side)
⑩
2 Screws
Eject Lock Base
3 Washers
(T-Side)
(S-Side)
Eject Lever Unit
⑪
(S-Side)
Tension regulator Unit
Washer
Spring
Guide Arm
Cam Gear
(T-Side)
⑫
Washer
Supply Reel Table
(S-Side)
(T-Side)
⑬
Screw holes(x3)
Fixating holes(x2)
DD Cylinder Unit
Fixating pins(x2)
Screw holes(x3)
3 Screws
⑭
RT Connector
(BOTTOM VIEW)
Pin holes
(T-Side)
(S-Side)
Phase Marks
Mark
Hole
Lead pins
⑮
1 Screw
4 Red Screws
(T-Side)
S.Guide Stand Unit
Cassette Holder Unit
(S-Side)

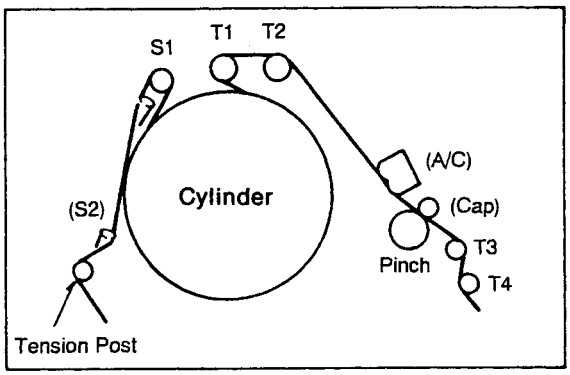
## 5 INTERCHANGEABILITY ADJUSTMENT

| No. | Items | Fig. | Adjustment Procedures |
|---|---|---|---|
| 1 | Back Tension | ① | Equipments: 1. Tension Meter (VFK0132)<br>2. VHS-C Cassette Tape<br>Specification: 16.5g-21.0g<br>1. Play back a tape.<br>2. Set Tension Meter at the measuring point, and read the value.<br>3. If the value is out of specification, change the hooking position of Tension Spring. |
| 2 | Height of Tape Guide Posts (Preliminary Adjustment) | ② ④ | Equipments: 1. Hex Wrench<br>2. VHS-C Cassette Tape<br>Specification: No tape curling<br>1. Play back a tape.<br>2. Confirm the tape travel at upper and lower guides on posts S1, T1, T2 and T3.<br>3. If curling is apparent, adjust the height of posts by turning the top of post with Hex Wrench. |
| 3 | Height of A/C Head (Preliminary Adjustment) | ③ ④ | Equipments: 1. Box Wrench<br>2. VHS-C Cassette Tape<br>Specification: See Fig. ③<br>1. Play back a tape.<br>2. Confirm that the tape runs 0.25mm above the lower edge of Control Head.<br>3. If does not correct, turn Height Adjustment Nut in either direction as necessary to correct it. |
| 4 | Tape Interchangeability | ⑤ ⑥ ⑨<br>④ ⑤<br>⑤ ⑥<br>② ⑦<br>② ⑧ | Equipments: 1. Dual Trace Oscilloscope<br>2. Alignment Tape<br>3. H-Position Adjustment Driver<br>4. Asterisk Wrench<br>Specification: Azimuth :Maximum Audio Output<br>H-Position :Maximum RF Output<br>RF Envelope :No Lack of RF Output<br>Preparation:<br>1. Press Tracking Up / Down buttons at the same time to set the tracking control in the center of the variable range.<br>2. Play back the monoscope portion (6KHz, MONO) of the Alignment Tape.<br>Adjustments:<br>Azimuth Adjustment for A/C Head<br>1. Connect the oscilloscope to Audio Line Output.<br>2. Adjust Azimuth Adjustment Screw so that the audio output level is at the maximum.<br>Horizontal Position Adjustment for A/C Head<br>1. Connect the oscilloscope to RF Output terminal (e.g.: TP8001).<br>2. Adjust the horizontal position by turning H-Position Adjustment Nut so that the RF envelope is at the maximum.<br>Height Adjustment for Tape Guide Posts<br>1. When the RF envelope is lacked at the beginning of the track, adjust the height of S1 post.<br>2. When the RF envelope is lacked at the end of the track, adjust the height of T1 post. |

①

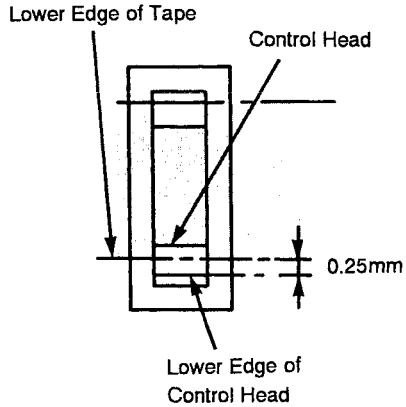

S1 Post
DD Cylinder
Measuring point
S2 Post
Tension Post
Tension Spring
S-Reel
Hooking
Portions
(x3)
Hook
Low
High

②

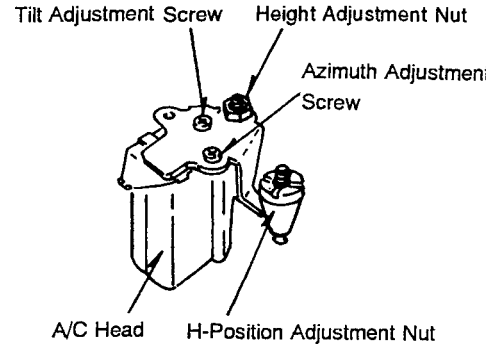

S1
T1
T2
(A/C)
(Cap)
T3
T4
Pinch
(S2)
Cylinder
Tension Post

NO GOOD
GOOD
NO GOOD

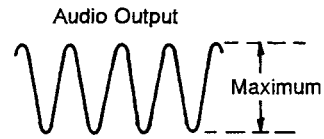
③


Lower Edge of Tape
Control Head
0.25mm
Lower Edge of
Control Head

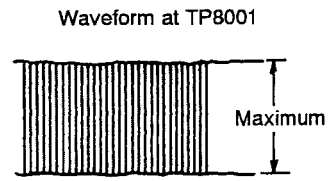
④


Tilt Adjustment Screw
Height Adjustment Nut
Azimuth Adjustment
Screw
A/C Head
H-Position Adjustment Nut

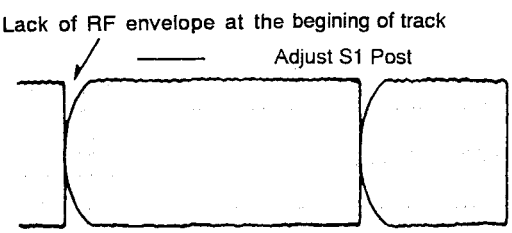
⑤


Audio Output
Maximum

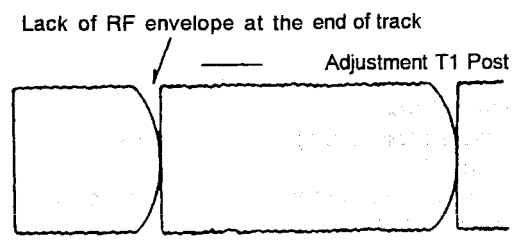
⑥


Waveform at TP8001
Maximum

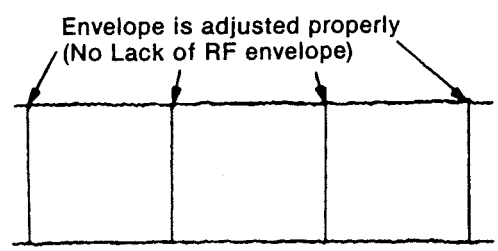
⑦


Lack of RF envelope at the begining of track
Adjust S1 Post

⑧


Lack of RF envelope at the end of track
Adjustment T1 Post

⑨


Envelope is adjusted properly
(No Lack of RF envelope)

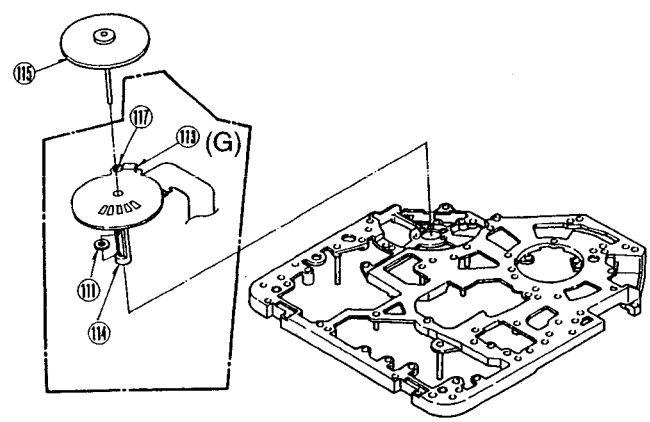
# 6 SERVICE HINTS

## FAULT FINDING CHART FOR DL MECHANISM

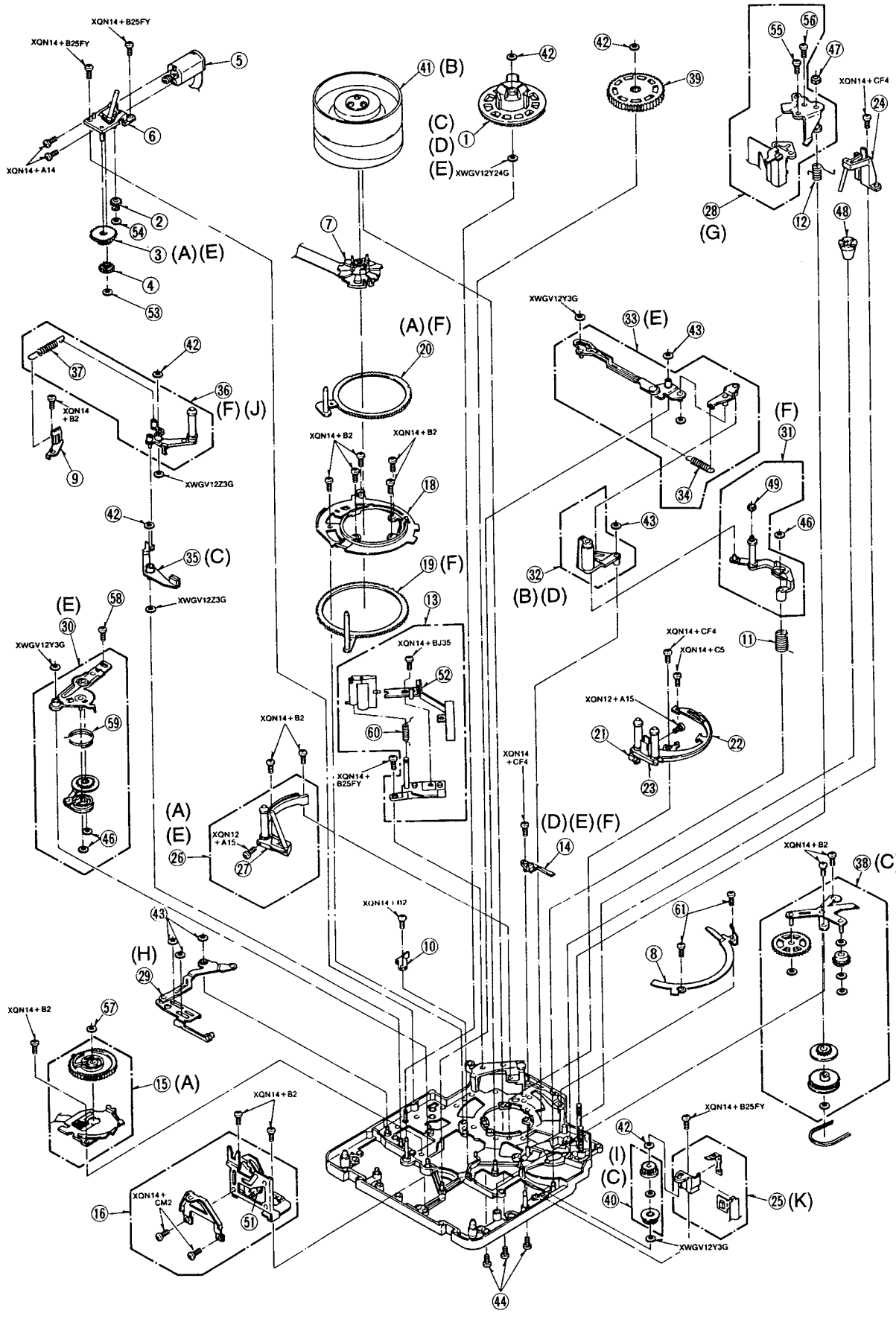
| REF. | SYMPTOMS | PARTS TO BE CHECKED | | |
|---|---|---|---|---|
| | | PARTS NAME | PARTS NO. | REF. NO. |
| (A) | No Mechanical Operation | BRAKE GEAR (B) | VDG0822 | ③ |
| | | MODE SWITCH (CAM GEAR) | VSR0096 | ⑮ |
| | | S-RAIL UNIT | ※1 VXA5153 (VXA4532) | ㉖ |
| | | S-RING UNIT | VXA4519 | ⑳ |
| (B) | Power Cut Off | PINCH ARM UNIT | VXL2139 | ㉜ |
| | | CYLINDER UNIT | ※2 NOTE | ㊶ |
| (C) | Tape Slack | REEL BASE (S) | VDR0226 | ① |
| | | PAD ARM UNIT | VXL2144 | ㉟ |
| | | T-DRIVE GEAR UNIT | VXP1313 | ㊵ |
| | | IDLER UNIT | ※1 VXL2399 (VXL2147) | ㊳ |
| (D) | Tape Jam | PINCH ARM UNIT | VXL2139 | ㉜ |
| | | REEL BASE (S) | VDR0226 | ① |
| | | T-BOAT GUIDE | VMD1851 | ⑭ |
| (E) | Faulty Loading | PINCH DRIVE ARM UNIT | VXL2140 | ㉝ |
| | | S-RAIL UNIT | ※1 VXA5153 (VXA4532) | ㉖ |
| | | REEL BASE (S) | VDR0226 | ① |
| | | BRAKE GEAR (B) | VDG0822 | ③ |
| | | SWING ARM UNIT | ※1 VXL2401 (VXL2133) | ㉚ |
| | | T-BOAT GUIDE | VMD1851 | ⑭ |
| (F) | Noisy Playback Picture | T-BOAT GUIDE | VMD1851 | ⑭ |
| | | TENSION REGULATOR ARM UNIT | VXL2145 | ㊱ |
| | | T-RING UNIT | VXA4518 | ⑲ |
| | | S-RING UNIT | VXA4519 | ⑳ |
| | | T3 ARM UNIT | VXL2415 | ㉛ |
| (G) | Periodic Noise on Playback Picture | AC HEAD UNIT | ※1 VXA5201 (VXA4998) | ㉘ |
| | | MR HEAD | VBK0059 | ㉝ |
| (H) | No Eject Operation | EJECT LEVER (1) UNIT | ※1 VXL2393 (VXL2130) | ㉙ |
| | | MECHANICAL PHASE ADJUSTMENT | | |
| (I) | Audio Wow | T-DRIVE GEAR UNIT | VXP1313 | ㊵ |
| (J) | Scratch on Tape | TENSION REGULATOR ARM UNIT | VXL2145 | ㊱ |
| (K) | Stop after few Sec. Play | T-REEL SENSOR UNIT | VXA4997 | ㉕ |

※1 **NOTE**: Some of the parts have 2 kinds of part number. Basically, part number in the bracket "( )" is an old (early) type.
For more detail, please refer to each Service Manual.

※2 **NOTE**: Confirm the part number with the Service Manual model by model.



# VTR MECHANISM SECTION




**Note:** Symbols (A)-(K) beside the reference number of each parts show the symptom concerned with the parts (Refer to page 14).

MEMO

Order no. VMD9708028S0

# Service Manual

Supplement

**Video Product**

Effective from : First Production

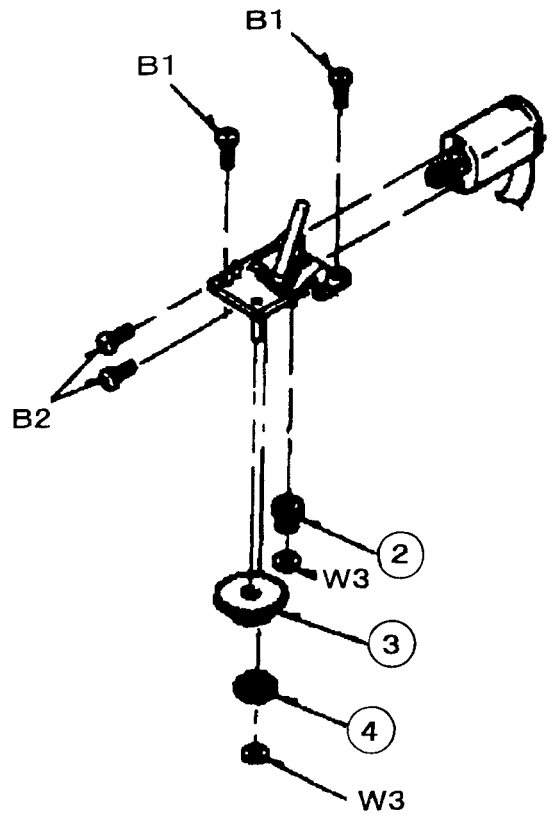
Model No. DL Mechanism's Movie Camera

## Subject : Correction of Parts List

Please use this service manual together with the service manual for DL Mechanism's Movie Camera.

Please correct parts list as follows.

| Ref. No. | Part No. | Part name | Pcs |
|---|---|---|---|
| 2 (1) | VDG0821 | BRAKE GEAR (A) | 1 |
| 3 (1) | VDG0823 | BRAKE GEAR (C) | 1 |
| 4 (1) | VDG0822 | BRAKE GEAR (B) | 1 |




**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

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